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"FRUIT WORLD OF AUSTRALASIA."

Representing the Deciduous, Citrus and Dried Fruits Industry of Australasia.

Published the First of each Month.

Editorial and Management Notices.

Articles and Photographs.—The Editor will always be very pleased to receive articles and photographs for publication. Articles on spraying, pruning, drainage, marketing, and other cultural matters, and reports of meetings, are welcomed. Please write on one side of paper only; include name and address (not necessarily for publication). Press matter sent in an open envelope, marked "Printer's MSS." postage rate: 2 ozs., 1½d. Photographs, if sent in an open-ended package, marked "Photos. only," will travel at 2 ozs., 1½d. A short description of the photos should be written on the back.

Subscriptions.

The annual subscription, post free within Australia and New Zealand, is 8/6. All other places, 10/6, post free. New subscriptions can commence at any date. Subscribers should notify us immediately of any change of address.

Renewal Subscriptions are due during the last month of the term covered by the previous payment, and unless notified to the contrary, the fact that the subscriber continues to accept delivery of the journal, is taken as proof that continuation of the subscription is desired, and we will continue to send regularly until notified in writing or copies are returned through the post.

Advertisements.

"The Fruit World of Australasia" is an advertising medium of proved value. Advertising rates may be had on application to our Head Office, or to agents in the various States, as set out below.

Changes of copy for advertisements must be in our hands on or before the 17th of the month prior to publication.

Readers are asked to make their purchases from our advertisers, who cover all lines of interest to orchardists, at the same time mentioning this journal. By so doing, the grower, the advertiser, and this paper will benefit.

Every care is taken to publish advertisements from reliable houses only, and to see that advertisements of an undesirable nature are not published. The management reserve the right to refuse to publish any announcements that they may regard as undesirable, either from the point of view of the goods offered or in the wording of the advertisement, notwithstanding the fact that a contract may have been entered into for the use of a certain space.

"The Fruit World" Offices (where copies and full particulars are obtainable) are as follows:

Victoria (Head Office): 9 Queen Street, Melbourne. **New South Wales**: Carruthers, Farrum & Co., 77 King Street, Sydney. **South Australia**: W. F. McConnell, Grenfell Buildings, Grenfell Street, Adelaide. **Tasmania**: Saunders & Co., Murray Street, Hobart. **Western Australia**: D. L. Hetherington, Colonial Mutual Buildings, St. George's Terrace, Perth. **Queensland**: Gordon & Gotch Ltd., Queen Street, Brisbane. **New Zealand**: Gordon & Gotch Ltd., Wellington, Dunedin and Auckland. **Great Britain**: Harvey H. Mason, 1 Mitre Court, Fleet Street, London, E.C., England.

R. E. BOARDMAN, A.F.I.A., Managing Director and Editor.

E. H. WRAGG, Secretary and Advertising Manager.

Tasmanian Director: HON. L. M. SHOORBRIDGE, M.L.C.

News of the Month.

The proposals of the Economic Conference for preference for Empire-produced dried and canned fruits is very heartening. On dried fruits the preference of £10/10/- per ton is substantial. It is hoped the British Parliament will confirm the arrangement.

The Victorian Department of Agriculture has invited applications from gentlemen capable of fulfilling the position of Superintendent of Horticulture, at a salary of £750 per annum.

Our Queensland correspondent urges the importation of new varieties of Bananas.

Murrumbidgee (N.S.W.) Citrus Growers are determined to eliminate the Thompson Navels from their plantations.

The necessity for fumigation of Citrus trees at Leeton (N.S.W.) to eradicate Red Scale, has been urged upon the resident commissioner of the Murrumbidgee Irrigation Areas.

The process of budding citrus trees is described in detail in the article entitled "Fruitgrowing under Irrigation," by our Special Correspondent.

Strong exception is taken by growers in the several States to the action of the Federal Government officials in altering and gazetting new regulations for exporting Apples and Pears without consulting the growers.

The Tasmanian fruit packing instructional classes trained 300 young people last season in the art of packing fruit. This is excellent work, which should be developed and extended. Education excels legislation in this matter.

Efforts are being made to reduce the duty on Lemons, Grapes and Passion-fruit entering New Zealand from Australia.

Australian Apple growers are earnestly pressing for a reduction of freight to Great Britain to 3/- per bushel.

Beneficial parasites are being introduced into the Murrumbidgee Irrigation Areas (N.S.W.) to combat the Olive Brown Scale on Citrus.

The Bill to provide for compulsory co-operation in Queensland is meeting with well-informed criticism. It is termed by some the Coercion Bill.

The report of the Western Australian fruit industry, published in this issue, makes interesting reading. It is worthy of close perusal by all our readers.

The estimated fruit crops on the Murrumbidgee Irrigation Areas for 1924 are 4,000 tons Clings and 1,000 tons Slipstone Peaches; 600 tons Apricots. This is beyond the capacity of the factory at Leeton to handle.

Big prices are being paid in England for new seasons American fruit: Apples are bringing 24/- per bushel case in London and Liverpool. (See market reports in this issue.) This augurs well for the coming Australasian export season.

By a united community effort the Fruit Fly was eradicated from a badly infected district in Western Australia. The same results are possible elsewhere. N.S.W. and Queensland readers will find this a valuable suggestion.

A New Zealand fruit importer states that the opportunity exists for Australia to send 1,000 barrels of Grapes weekly to New Zealand. The importance of the barrel is emphasized. (Size of barrel, 8in. high, 14in. wide, holds 30lbs. of Grapes).

AUSTRALIA'S EXPORT TRADE.**Freight and Port Charges Must be Reduced.**

The importance of freight reductions on the export of produce from Australia is recognised. The freight on Apples should be reduced to 3/- for the coming season.

The British Chamber of Shipping, referring to recent reduction of freight on beef, adds:—

It is vain for the Commonwealth to hope for further reductions until it has substantially reduced its high port charges, light dues, pilotage rates, guarantee expenses, and other terminal costs in Australian ports. The Chamber urges upon the Federal and State Governments that such charges constitute a serious obstacle to the free development of Australian trade, and reminds them that all similar charges in this country have been drastically reduced so that, speaking generally, they do not now exceed 40 to 50 per cent. of the charges prevailing before the War. It is added that at present shipping services to Australia are running at a loss. It is, therefore, nothing short of madness from the Australian point of view to maintain high charges, which must tend to increase freights, and not decrease them, as the Australians expect.

* * *

Growers and exporters are bringing pressure to bear on the Governments to have these port charges reduced. The charges at Melbourne are the highest in the world—an enviable reputation.

ARBITRATION COURT.**Fruitgrowers and the A.W.U.**

The New Award Applies only to Employees who are Unionists who are employed by men against whom an award has been made.

The new award in the fruitgrowing industry is a lengthy document. For the sake of brevity and clearness, the following concise summary has been prepared by Mr. J. H. Lang, of Harcourt (Vic.), who took an active part in defending the fruitgrowers' interests.

Summary of Award.

The basic wage, based on the index figures of the four country towns in each State, is:—

Employees, male or female, over 18, £3/19/6.

Employees, 15 years, but under 18, £3/10/-.

Employees, under 15 years of age, £2/10/-.

Exceptions.

Leeton (N.S.W.), 8/- week more.

Mildura (Vic.), 5/6 week more.

Curtin and Wentworth (N.S.W.), 3/- week more.

Irymple, Merbein (Vic.), 3/- week more.

West Australia, 6d. week less.

Tasmania, 1/6 week less.

Victoria (n.e.i.), 3/6 week less.

South Australia (n.e.i.), 8/- week less.

Casual employees, 1/- day more.

Seasonal employees, 3/- week more.

The above are minimum rates, and higher rates are payable to expert pruners, sweat lumpers, etc.

All employees who are members of the A.W.U., engaged in harvesting, packing, or forwarding operations, are covered by this award when employed by growers against whom an award has been made.

As the rates of pay will be adjusted each quarter, in all probability these are likely to be reduced before the season commences, as the summer cost of living is usually less than in the winter months, on which these figures are based.

An allowance is granted (on the rates fixed) to those who provide accommodation for employees.

Those growers against whom an award has been made, must pay the amount stipulated to members of the A.W.U. only.

Many growers who were cited filed affidavits with the Court, asking to be struck out, as they did not employ members of the A.W.U. Their request was granted, and no award has been made against them.

Termination of Engagement.

A weekly employee will accept and give two days' notice at any time to definitely determine the employment as sufficient to terminate a weekly engagement.

The employer may retain in hand two days' pay to compel compliance with the agreement as to notice.

The Court refused to make the

award retrospective, nor is a member of the union entitled to claim for rates unpaid by his employer if he fails to make application in respect thereof within two months after the claim has arisen.

THE NEW WAGES AWARD.**A "Producers' Strike" Suggested.**

(To the Editor, "Fruit World.")

Sir,—It is about time producers had a say in the matter of wages.

Mr. Justice Powers' award for fruit pickers is most unjust and absurd. No wonder the fruit industry will be crippled when such unjust awards are made by men who do not understand the land producers' trials.

It is about time the producers formed a body and refused to allow these back street politicians to handle country matters. Surely the producers, as a body, could stand together and refuse to pay these awards. Land men are not fools. Why allow townites to dictate as to what wage shall be given?

A man would be a fool if he paid £5 in wages to receive only £3 for his produce.

It is up to the producers to strike this season, now fruit will be a slump in the market. Let our land grafters hold firm and refuse as a body to be dictated to by any unjust judge—a man who can be free with another's money. No man has a right to damn another man's livelihood.

Orchardists, farmers, in fact, all producers, work hard, so why should they fling good money after bad. When you allow any man to stipulate all pickers to receive the same wage, it is unjust to the honest hard worker, who has to work side by side with a waster.

A good worker is worth a good wage, but when town loafers or Government men get a better wage, it is about time the producer had a say in the matter of wages.—Yours, etc.,

E. A. JANSON.

Orchardist, Lilydale, 27/9/23.

AMERICA'S NEW PRESIDENT.**A Message to the People from Mr. Coolidge.****A Manly Statement.**

President Coolidge, of U.S.A., states:—

There are strident voices urging resistance to law in the name of freedom. They are not seeking freedom even for themselves—they have it; they are seeking to enslave others. Their works are evil. They know it. They must be resisted. The evil they represent must be overcome by the good others represent. These ideas which are wrong, for the most part

imported, must be supplanted by ideas which are right. This can be done. Prosecution of the criminal and education of the ignorant are the remedies.

My oath was not to take a chance on the Constitution. It was to support it.

No man has a right to place his own ease or convenience or the opportunity of making money above his duty to the state.

What men worship they will become. The heroes and holidays of a people which fascinate their soul reveal what they hold are the realities of life and mark out a line beyond which they will not retreat, but at which they will stand to overcome or die. Your true patriot sees home and hearthstone in the welfare of his country.

Under our national government the states are the sheet-anchors of our institutions. On them falls the task of administering local affairs and of supporting the national government in peace and war.

A careless, indifferent representative is the result of a careless, indifferent electorate.

There is no greater service that we can render the oppressed of the earth than to maintain inviolate the freedom of our own citizens.

To be included with the classics are modern history and literature, the philosophers, the orators, the statesmen and poets—Milton and Shakespeare, Lowell and Whittier—the Farewell Address, the Reply to Hayne, the Speech at Gettysburg—it is all these and more that I mean by the classics. They give not only power to the intellect, but direct its course of action. The classic of all classics is the Bible.

We need more of honest hard work and less of the show window in politics.

Reverence is the measure not of others but of ourselves.

REDUCED AUSTRALIAN SUGAR CROP.**Drought in Queensland.**

Brisbane (25/10/23).

Owing to the drought in Queensland the sugar crop in the districts from Townsville to Bundaberg will be much lower than anticipated. Several mills are closing at the end of October, after running for 12 weeks instead of continuing operations till January.

Queensland Pineapple Crop.—The crop of Pineapples in Queensland is increasing. Big supplies are expected from soldier settlements. The anticipated pack of canned Pineapples is 260,000 dozen, of which 240,000 doz. can be absorbed in Australia, leaving 40,000 doz. for export. A subsidy of £14,000 is requested.

Fruitgrowing in Western Australia

PRODUCTION AND EXPORT STATISTICS

Trade with Eastern Asiatic Countries.

Developing the Local Markets.

Annual Report by Mr. G. W. Wickens (Officer-in-Charge Fruit Industry) for Year ended 30th June, 1923

THE FRUIT CROP for season 1922-1923 was one of the heaviest ever experienced in this State. Apples, Pears, Grapes, Citrus fruits, and stone fruits, were all produced in abundance, and growers realised that the only means of preventing local gluts was to ship heavily to overseas markets. The result is a record for the State, 394,536½ cases having been shipped since 1st January, 1923, while for the year ended 30th June, 1923, 407,085 cases have been sent to markets outside of Australia. In addition, 1,402 cases have been sent to the Eastern States during the last few months and several thousand cases of Apples have been purchased by Adelaide firms for delivery later in the year, the fruit meanwhile being held in cold store here. The largest quantity exported previously in one year was 269,241 cases in 1921-1922.

Particulars of the number of cases, kinds of fruit, and markets to which it was forwarded are as follow:—

The report herewith from Western Australia is interesting and valuable.

Apple exports totalled 355,850 cases (to June 30): Orange exports to date are approximately 40,000 cases.

In co-operation with the Railway Department the local markets are being developed.

Vineyards are steadily increasing: the products (fresh and dried) are being exported.

The State is free from Codlin Moth, Phylloxera, and Black Spot.

A united community effort in a fruit fly infected district eradicated the pest.

Manurial tests are being conducted in orchards and vineyards.

State in former years, reference may be made to the shipment which took place in 1912, 1913, and 1914, comparing London and Hamburg:—

	1912.	1913.	1914.
London . .	43,614	25,939	41,611
Hamburg . .	14,951	33,327	63,711

In 1914, the total quantity exported from Western Australia amounted to 126,808 cases, so it will be seen that Hamburg in that year took just a little more than half.

As fruit on the London market is not likely to enhance in value to a marked degree in the next few years, and European countries will take a long time in returning to normal conditions, other overseas markets must be searched for, and these appear to lie in the thickly populated Asiatic countries situated comparatively close to us. We cannot increase, as we should, the trade now carried on with them until more boats with refrigerated space are available to carry the fruit, and cold stores are erected at the principal ports where it is unloaded. The latter are essential, for without them fruit cannot be held for a favourable sale

Unfortunately prices realised on the London market which received the bulk of the fruit left only a small return to the grower after expenses were paid. Apples ranged from 9/- to 22/- per case, but only a very small quantity reached the higher figure,

Export of Fresh Fruit from Western Australia for Year ended 30th June, 1923.

Destination.	Apples cases.	Grapes cases.	Pears cases.	Oranges cases.	Lemons cases.	Plums cases.	Peaches cases.	cots cases.	Nec- tarines cases.	Fruit cases.	Quinces cases.	Total cases.
Bandeong . .	—	—	—	10	—	—	—	—	—	—	—	10
Batavia . .	7,169	1,160	422½	799½	7½	26	—	—	—	—	—	9,584½
Alexandria . .	750	—	—	—	—	—	—	—	—	—	—	750
Bombay . .	4,505	10	31½	—	—	—	—	—	—	—	—	4,546½
Colombo . .	7,913½	1,013	258½	2	—	—	—	—	—	—	—	9,188½
Durban . .	808	—	—	—	—	—	—	—	—	—	—	808
French Malaya States . .	3	—	—	—	—	—	—	—	—	—	—	3
Hull . .	29,090	—	—	—	—	—	—	—	—	—	—	29,090
London . .	249,928	8,655	13,969½	17,783	—	87½	6½	2½	3	3	34	289,472
Manchester . .	12,432	—	—	—	—	—	—	—	—	—	—	12,432
Hong Kong . .	43	—	—	—	—	—	—	—	—	—	—	43
Mauritius . .	1,172	20	8	—	—	—	—	—	—	—	—	1,200
Port Said . .	18,522	79	213½	10	—	—	—	—	—	—	—	18,824½
Samarang . .	964	72	28½	146½	70	—	—	—	—	—	—	1,281½
San Francisco . .	200	—	—	—	—	—	—	—	—	—	—	200
Singapore . .	11,705	1,945	251	455½	—	—	20	—	—	—	1½	14,378
Sourabaya . .	10,806	2,690	97½	573½	9	15	21	2	—	—	—	14,273½
Totals . .	355,850½	15,844	15,280½	19,799½	86½	129½	48½	4½	3	4½	34	407,085

Of the above, 279,418 cases were shipped at Fremantle, 109,494 at Albany, and 18,178 at Bunbury.

It will be seen from the countries mentioned in the above list that considerable enterprise is shown by growers' agents in endeavouring to find markets throughout the world, and it is noteworthy that this is the first year Grapes have been sent from here to the United States.

the majority being sold from 9/- to 15/-. From returns which I have seen I think the average will work out at about 12/- or between that and 12/6. With freight by rail and boat, shipping charges, commission and insurance aggregating from 7/6 to 8/-, the margin left for producing and packing the fruit is certainly small.

To instance what the European markets meant to fruitgrowers of this

in the humid climate which obtains there.

People engaged in producing fruit in Western Australia have planted their orchards mainly with the idea of supplying overseas markets with fresh fruit. Fruits suitable for canning and jam making, which figure largely in plantations in the Eastern States, have been left alone to a great extent here, competition with the well

equipped factories in the East making it a difficult matter to successfully establish the business in the West.

As stated, growers have confined their attention mainly to fruits suitable for exporting, while fresh, and

profit, then it is better fed to stock than sent to market.

Acreages and Production.

Particulars of kinds of fruit grown and the production for season 1921-22 (1922-23 figures are not yet available) are as follow:-

Return for Season 1921-22.
Orchards.

Kind of Fruit.	Fruit bearing.	acres.	bushels.	Fruit
				acres.
Oranges		2,162	172,582	874
Mandarins		187	20,525	44
Lemons		330	36,320	309
Apples		7,819	538,175	2,134
Pears		992	57,626	342
Apricots		514	29,801	180
Peaches		827	38,414	202
Nectarines		177	8,482	54
Plums		686	41,937	199
Quinces		92	9,459	20
Figs		365	42,569	74
Bananas and Plantains		7	785	8
All other fruit trees		163	Value £4,230	131
Small fruits		120	Value £6,116	—
Total Acreage		14,441	996,675	4,571

Apples, Grapes, Oranges and Pears, in the order named, occupy pride of place in area under fruit. Vineyards are steadily increasing, the products from these being exported both as fresh Grapes and also as Raisins and Currants.

Developing Local Markets.

In addition to sending large quantities of fruit to overseas markets, producers have, this year, made efforts to increase local consumption by bettering distribution. Truck lots accompanied by a grower who acted as salesman were despatched through the wheat areas, and the Argyle orchardists met with sufficient success to induce them to send a truck every three weeks.

Several attempts were made to establish co-operative fruit-selling agencies in Perth direct from grower to consumer, but they met with little success, one reason for this being the inferior fruit which some of the suppliers sent forward.

The State Fruit Advisory Board has this matter under consideration and is formulating a scheme for better distribution in connection with next year's crops.

The effort should commence right in the orchards: obsolete varieties should be worked over at once to better sorts; quality of fruit should be brought up to standard by keeping the trees in good condition; thinning out fruit should always be practised when trees overcrop, and overcropping should, in a measure, be prevented by judicious winter pruning, for when trees are overladen the size and quality of fruit suffer. Last, and very important, inferior and bad fruit should not be sent for sale in competition with good fruit; if it cannot be made into jam or dried at a

Vineyards.

Table Grapes	1,020	ewts.	—
Wine Grapes	814	23,034	—
Drying Grapes	917	51,526	—
Young Vines	—	115,443	1,200
Total Acreage	2,751	—	1,200

Dried Fruits.

Raisins	5,867½	ewts.	—
Sultanas	923	—	—
Currants	6,370	—	—

According to these returns the area under orchards is decreasing annually, the decrease from 1920-21 to 1921-22 being 409 acres. This is most puzzling, for in that year there were 115,649 fruit trees imported and inspected at the ports of Albany and Fremantle, in addition to the trees supplied by local nurserymen. This matter will be satisfactorily settled as soon as the proposed fruit census is completed, and forms one of many good reasons why it should be carried out as early as possible, for it is impossible to correctly estimate the crop and probable quantity available for home use and export unless the approximate areas under each kind of fruit is known.

Vineyard Notes.

Grape growers have experienced unusual trouble this year owing to wet weather during the time the Grapes were being gathered and while they were on the drying racks. The Swan district, where most of our vineyards are situated, has an ideal summer climate for sun-drying Grapes, and this is the first season I have known a severe loss occurring through rain.

From 15th March until 18th April six boats carried fresh Grapes from Fremantle to London. Some of these brought very high prices: Ohanez

35/- per case, containing about 28 lbs., and Wortley Hall 42/- for the same quantity. The latter variety is widely grown, but has not been looked upon previously as suitable for export, and the comment by the salesman in London is full of interest: -

"These (Wortley Hall) are the finest Grapes that have ever been received in this country; some of the cases contained berries 1½ ins. long. Many members of the trade and Government officials saw the fruit, and all were greatly surprised to see such wonderful fruit, knowing the distance it had to travel."

Some of the earlier varieties shipped did not carry well, and brought low prices.

Export of Oranges.

Prior to last season small consignments of Oranges had been exported to London at various times, one of the largest being a lot of 122 cases in 1914. Last year commercial quantities were shipped amounting to 12,127 cases. This year, to 30th June, 19,799½ cases were forwarded, and the total for the season will probably be between 35,000 and 40,000 cases.

Pest Control.

Fruit Fly (*Ceratitis capitata*) has been in evidence in many orchards this year, and has caused considerable loss to growers within 20 to 30 miles of Perth, but, fortunately, the large fruitgrowing areas in the South-West—Donnybrook, Bridgetown, Mt. Barker, etc.—still remain free.

An interesting experiment in co-operative baiting was carried out at Spearwood, where a group of 50 growers in a very badly infected area marketed practically the whole of their crops without loss from Fruit Fly. There is no reason why this result cannot be achieved by the same methods in every badly infected district, and much credit is due to our Inspector, Mr. Simmons, who initiated the scheme and supervised the work.

I am still able to record that the State is free from two very injurious insect pests—Codlin Moth and Phylloxera—and one bad and common disease Black Spot (*Fuscipladium denriticum*) on the Apples.

Manuring Tests.

The manurial test commenced last year in an Apple orchard is being continued, but no definite results will be noticeable for some time.

This year we have initiated and are supervising manurial tests in vineyards.

Trees and Plants Imported.

During the year ending June, 1923, trees and plants were imported into Western Australia to the extent of 267,940.

In the same period 29,071 cases of fresh fruit were imported, of which quantity Bananas totalled 28,442 cases.

G. W. WICKENS,
Officer-in-Charge, Fruit Industry,
Western Australia.

The Canned Fruit Industry

Federal Government Offers Bounty on Production and Export.

As the Conditions Laid Down are Considered Unworkable, the Government's Offer is Regretfully Declined.

New Proposals Pending.

OWING to the uncertainty as to what was to become of the next season's crop of canning and jam fruits, a special conference of fruitgrowers was called, under the auspices of the Australian Conference of Fruitgrowers. The meeting was held at Melbourne at the end of September. Mr. V. R. McNab, Ardmona (Vic.), presiding. After a full discussion, it was decided that a representative deputation wait on the Acting Prime Minister (Dr. Earle Page) to impress the seriousness of the present position.

Dr. Page met the growers when the urgency of the matter was placed before him. It was stated that 40 per cent. of the pool fruit came from "Government financed" orchards, and that the continued control of sugar and its high price were serious factors in bringing about the present chaos.

The Acting Prime Minister stated that the price of sugar was being shortly reduced from £39/18/6 to £35/13/- for manufacturing purposes. He would announce the Cabinet's decision later.

Federal Government's Proposal.

The Acting Prime Minister met representatives of the growers and canners on October 12, and stated that the Government had decided to allocate £125,000 as a bounty on production and export, for one year only.

Details of the bounty plan are as follows:—A bounty will be paid at the undermentioned rates to the manufacturer on production of the canned fruits specified, and a further bounty to canners on fruits exported from the Commonwealth, with the approval of the Customs Department.

Fruits	Rate of Bounty On Production. Doz. 30oz. Tins.	Rate of Bounty Additional Bounty on Export. Doz. 30oz. Tins.
Apricots . . .	9d.	1/8
Peaches (cling)	9d.	2/-
Peaches (free)	7d.	—
Pears	9d.	1/6
Pineapples . . .	6d.	1/-

Conditions Attached to Bounties.

The bounties will be paid to the canner only on the following conditions:—

That he purchases the fresh fruit at prices not less than the following at orchard:—Apricots and Pears, £10 a ton; Cling Peaches, £9 a ton; free Peaches, £7 a ton; Pineapples, £6 a ton.

That on delivery of the fruit to the cannery the grower receives a first payment of not less than £8 a ton for Apricots and Pears, £7 a ton for Cling Peaches, £5 a ton for freestone Peaches, and £4 a ton for Pineapples, the balance of the payment to be made within six months of the receipt of the fruit at the cannery.

That the canner purchases fruit suitable for canning in quantities equivalent to those which his factory is capable of handling. Before the season commences each canner will be required to undertake to can such varieties and quantities of fruit as the Comptroller-General of Customs may prescribe, having regard to the capacity of the factory.

That the canner furnishes proof to the satisfaction of the Minister for Customs that the fruits in respect of which bounty is claimed are of good and merchantable quality.

That all account books and documents relating to fruits on which bounty is claimed shall be subject to examination and audit by an auditor appointed or authorised by the Minister.

That if, after inquiry and report by the Tariff Board, the Minister is of opinion that the canner is not selling in the Australian market the fruits in respect of which bounty is claimed at a reasonable price, the Minister may withhold payment of the bounty or so much thereof as he thinks fit.

In respect of fruits exported bounty is payable only on fruits packed and graded in accordance with commerce regulations, and approved for export by a Commonwealth inspector. The Minister may, if he thinks fit, limit the quantities and kinds of fruit that may be exported by any canner.

On slipstone Peaches bounty is limited to 190,000 dozen of canned fruit, which is equivalent to about 2,500 tons of fresh fruit. Each canner will be allowed, for bounty purposes, a pro rata quantity of slipstone Peaches based on the quantity packed by him last year.

The bounties referred to will be paid only in respect of fruits grown and canned in the Commonwealth during the 1923-24 season.

* * *

The proposals were examined at a subsequent meeting of growers and canners. All the canners, co-operative and proprietary (with the exception of the Leeton Cannery, N.S.W.),

stated they had not been consulted in the drawing-up of the scheme.

Mr. Fairley (Shepparton cannery) said the terms were impossible, and their cannery could not operate under them. The scheme provided for processing 3,000 tons of Apricots, 11,000 tons of cling Peaches, 2,500 tons free Peaches, 4,000 tons Pears, and 5,500 tons Pines—a total of 26,000 tons. The estimated quantity of 300,000 tins canned fruits that would be obtained from the above was 321,000 dozen Apricots, 990,000 dozen cling Peaches, 190,000 dozen free Peaches, 244,000 dozen Pears, 260,000 dozen Pines—a total of 2,005,000 dozen; and the bounty that the canner would receive was—

Apricots, 9d. per dozen; bounty, £4/1/- a ton.

Cling Peaches, 9d. per dozen; bounty, £3/7/6 a ton.

Free Peaches, 7d. per dozen; bounty, £2/4/5 a ton.

Pears, 9d. per dozen; bounty, £2/5/- a ton.

Pines, 6d. per dozen; bounty, £1/5/6 a ton.

A total of £70,839.

The additional bounty on export was:—Apricots, 1/8 per doz.; Cling Peaches, 2/- per doz.; free Peaches, nil; Pears, 1/6 per doz.; Pines, 1/- per doz.; and on the assumption that about one-third of the pack would be exported, the bounty worked out at £50,111, or a total bounty on production and export of £120,950. Take Cling Peaches, on which the greatest amount of bounty was proposed. Last year the net costs of landing standard grade on the English market was over 12/- per doz., without duty, and costs would not be any lower this year—tinplate is 10 per cent. dearer. The Government had just sold a large parcel on the London market at 6/6 per dozen; and if we took this figure as the market value and added the bounty of 2/9 per doz., it meant that to export would involve the canner in the loss of 2/9 per doz. The Government did not think that the price would be better this next year, or why had they sold, and were still trying to sell, further quantities?

The price the canner had to pay the grower was £10 per ton for Apricots and Pears, £9 for Cling Peaches, £7 for free Peaches, and £6 for Pines; and, assuming the quantity the Government estimates to be correct, the canner would have to pay the grower £219,500, and all they got from the Government was £70,839, providing, of course, there was no export.

It was pointed out that the Government proposals involved shifting the whole financial responsibility from their shoulders to those of the canners. Over £1,000,000 would be involved in processing the crop. No canner could possibly operate under these conditions. The export market was dead. The only market available was Australia. For canners to receive only the suggested bounty they would have to increase the present prices, which would kill local consumption. The carry over from the 1923 pack was 600,000 dozen tins.

Mr. A. W. Palfreyman (Managing Director Australasian Jam Co. Ltd.) stated that had the Government agreed a few months ago to lift the sugar embargo the canneries would have operated at full capacity without Government assistance. An alternative proposal was now necessary, and he suggested that if the Government would pay growers half the cost of the fruit the canneries would pay the other half, provided the Government took over the surplus stocks unsold at the end of the season. Further, the price of canned fruit in Australia would remain the same as at present, and canners would pay all profits over 5 per cent. to the Government as a contribution towards dealing with the surplus.

Mr. Fairley suggested a further alternative, viz., that the Government allot £125,000 as a bounty on production, the canners to put up one-third of their pack for export, and if, at the end of the season, it was found necessary to export to clear the season's stocks, that a further bounty be provided.

The canners, having resolved that the Government's proposals could not be accepted, a further resolution was adopted urging that, in view of the possibility of the cannery doors being closed this season, a conference be speedily held between the Government, the canners and the growers to arrive at a workable understanding.

* * *

As the position stands to-day, it is extremely serious for the growers of cannings and jam fruits, for unless a working understanding is arrived at between the Government and the canners, the latter are not in the market for processing fruit.

PERSONAL.

Mr. Austin Wilson, special representative for the London and North-Eastern Railway Company, is at present in Australia, in connection with the development of the export of Australian products to Hull, Eng. It is expected that he will remain here for some time.

The man who does all he can is always the man who tries to do more than he can.

Banana Culture.

New Banana Varieties Should be Imported.

Soil : Varieties : Planting : Pest Control.

FROM TIME TO TIME various varieties of Banana were introduced (writes the Queensland correspondent of the "Fruit World"), but one of the first, the Cavendish, has invariably maintained the most prominent position. The Lady's Finger and Sugar are fairly extensively included in some districts, but other tall growing varieties, including Plantains, do not find much favour. Being most suited to tropical conditions, production is slower in the cooler parts.

There is urgent need for importing new varieties as have not yet been tried in Queensland, and reason dictates that this should be done without further delay.

The Banana occupies by far the most important place amongst Queensland fruits. The area planted has been very much extended in Southern and Central Divisions. Practically the whole of the suitable land in the Southern area, which has reasonable transport, and has not been locked up for timber reserves, has been absorbed for this or other crops, and the Central Division has not very extensive areas available.

A consistent and heavy rainfall is indispensable for best results, and this predominates over the most suitable lands of the northern belt, from whence, in earlier years, practically the whole of export emanated.

Almost any fertile land, with good drainage and free from frost, will produce Bananas, but the most lasting results are obtained from moderately heavy

deep volcanic soils which occur at intervals along the Queensland coast, but more particularly in the north.

Soft wood scrub lands are put under crop for a much less cost than forest. The timber is felled, burned when dry enough by a running fire, smaller unconsumed portions being subsequently heaped and burned whilst the heavy logs are allowed to rot on the ground.

Planting is effected by mattock amongst the stumps (which rot out in about 18 months), the only cultivation applied is weeding by hoe.

Deep planting is recommended in situations well within the tropics (the bulbs or suckers being really planted in a hollow basin), but shallow planting gives best results in the south. In any case the butt of the plant should not be covered with more than 6 inches of soil.

The first fruiting is usually evinced within 10 months, where suckers are planted and a month or two ~ fruitgrower.

longer where butts are used—that is, under favourable conditions. Any departure, by drought or other causes will result in corresponding delay.

Crowding, by allowing an excess of suckers is a frequent cause of retarding cropping, consequently de-suckering is more or less practised throughout.

Usually 12 ft. intervals are allowed in planting the Cavendish, 15 ft. in the tall varieties. The distance has been the subject of press controversy, some advocating only 6 ft. and quoting supporting figures, but these are from starters with 12 months' experience.

The malady known as "Bunchy Top," which has devastated so many plantations in Northern New South Wales and Southern Queensland, has not been successfully combated. Scientists of both States individually and collectively, have failed to locate the origin of the trouble, and private individuals, tempted by a substantial reward, have made repeated failures.

The matter is of vital importance to the South Coast border district, but an actual falling off in exports of over 1,000 cases per month (from the previously reduced output) within the past 12 months has failed to arouse much sympathy and less action. The matter of local experiments conducted by the Department is again being urged, and it is confidently hoped that beneficial results will be attained.

So far no suggestion of "Bunchy Top" has been noted in districts further north, but as its origin is undetermined, the possibility is quite open. It is reported as having been present in Fiji, but not to an appreciable extent.

The presence of the Banana beetle is unfortunately rather general, and beyond the original system of trapping, nothing has been elucidated regarding its control.

In the Central district a small thrip spoils the appearance of the fruit by causing a rusty discolouration (rust) and thereby spoiling its sale. Various measures have been tried against it, but without satisfaction. During the winter months it is practically inaccessible, but the remedy satisfactorily applied in Fiji, pyrethrum powder, will be given a trial when conditions are favourable.

"Every Grower Should Have a Copy."
In the opinion of G.W. Queensland the "Annual" is a first-rate production, containing a mass of interesting and valuable information for growers. It should be in the hands of every fruitgrower.

Factors Affecting the Vineyard Yield

IRRIGATION : DRAINAGE : PLOUGHING : MANURING

By A. G. Lyon, Agricultural Scientist to the Mildura Vineyards Protection Board.

I. The Water Supply.

WATER SUPPLY is an all-important matter in our community irrigation settlements at Mildura (states Mr. Lyon in a recent treatise on this subject): the time of irrigation is not usually under the control of the individual. But we must set up our ideals and approach them as nearly as possible.

Every year cases come under our notice, where vines are adversely affected as follows:—

(1) A bad bud-burst results from insufficient supply of soilwater in early spring.

(2) An irrigation applied to comparatively dry land at or about setting season results in an abnormal fall of flowers and berries.

(3) Undue dryness at any time results in premature browning and hardening of the leaves, and consequent interference with the normal functions of these leaves for the rest of the season.

(4) The period of time between the last irrigation and harvest is too long in many cases, and complete maturation of the fruit becomes impossible through shortage of soil water.

Most experienced viticulturists have seen, or suffered, at least some of these disabilities; and know that yields can be affected by such conditions. You know also that in a community settlement the time, frequency, and at times the duration of an irrigation is necessarily outside the control of the individual.

Yet we must look ahead, and endeavour to so arrange matters that these periods of dryness, these excessive changes in water contents of the soil, do not occur. Should an opportunity to take irrigation water present itself, we must view the matter from two distinct standpoints:—

- (a) Does the land require water now?
- (b) Will it become too dry before the water is again available?

For a sufficiency of soilwater to give a satisfactory bud-burst, we are dependent on:—

- (a) A winter or early spring irrigation (before bud burst).
- (b) Rains during the dormant period.
- (c) An irrigation in the previous autumn.

Our plans must be based on the possibility of a dry year, as dependence on rainfall frequently brings disaster. If then a viticulturist knows that water will not be available before bud-burst, an autumn irrigation becomes a necessity.

Though written for conditions at Mildura, readers will note the application to other irrigation settlements.

Mr. Lyon stresses the importance of wisely directed irrigations, drainage, deep ploughing and manuring, giving essential details.

The next section of the article will refer to cincturing, harvesting, and other important matters.

The frequency of irrigations between growth is controlled by the practices of each individual irrigation settlement. The individual grower can control the situation by having his land in such a condition that thorough irrigation becomes possible, so that the results of an irrigation will be more lasting.

Experience of past years has evolved our present system of three to four irrigations between first spring growth and harvest. In the special case of shallow lands additional waterings are warranted in a dry year.

Some of our earlier agricultural writers went so far as to say that the successful growth of plants was entirely proportional to the water-supply. While we cannot agree with this in its entirety, we must recognise that shortage of soil water from any time from bud-burst until harvest will play an important part in limiting yields for the current season; and that premature leaf fall through shortage of water may affect the yield for the following season.

II. Underdrainage and Aeration of Soils.

ARGRICULTURAL DRAINAGE is of such importance in connection with irrigation that provision should be made, in the original survey of all irrigation districts, for the ultimate establishment of a system of agricultural drainage by which free water in the irrigated soils can be taken to the country drainage.

The advantages of drainage are many-fold:—

- (a) A greater depth of soil and sub-soil is made available to the roots.
- (b) The soil water supply of the plant is increased.
- (c) Proper aeration of the soil is possible.
- (d) Injurious salts may be leached out.

(e) The possibility of excessive heating of soil water at the depth at which the roots are established is reduced.

Drainage problems are now engineering and financial, rather than agricultural.

Injurious Salts in the Soil.

The presence of injurious salts must always limit yields until drainage is accomplished. Expedients such as watering under the row of vines, frequent irrigation and thorough mulching of soil to prevent surface evaporation, certainly assist in minimizing the evil. "Correct the biggest fault first" is a sound principle, and is of special application in the case of lands requiring drainage.

* * *

Ploughing and Mulching.

AMOSTENED SUBSOIL and a dry protective tilth are our ideals in viticulture. These ideals are generally recognised, though not always accomplished. I might stress, however, the importance of certain special operations.

(1) Deep ploughing at least once a year, and subsoiling even less frequently, will do much to make thorough irrigation more possible. Deep working is particularly necessary before the first irrigation, as our lands usually reach their worst state of tilth during the winter months—thus shortage of soil water before the second irrigation frequently occurs, due to the fact that the first irrigation has been imperfect through the conditions of the land.

(2) Additional ploughings are warranted after a wet spring, certainly on the heavier lands.

The beating of the rain compacts the soil, possibly beyond correction by the cultivator, and the frequent wetting by rain makes the establishment of surface roots possible. The danger of withering of leaves during a spell of extremely hot weather is thus greater after a wet spring, unless corrective measures are taken.

The sun's rays may evaporate, concentrate, and overheat the soil water in the region of the roots; so that desirability of immediate application of a protective mulch becomes apparent.

The cultivator should be viewed as an implement which preserves and improves the condition of tilth, rather than tending to increase depth of tilth.

On much of our river lands a light ploughing in January is coming more and more into favour. The practice is commendable as a

mulch at a satisfactory depth is secured before commencement of harvest.

Presence of Weeds.

A weed has been defined as a plant growing where it is not wanted. Weeds are certainly capable of limiting yields, and when they become a feature of the vineyard their suppression should be first care. The ability of weeds in removing moisture intended for the vine, and in interfering with cultural operations, is too well known to need any elaboration.

III. Manuring the Vineyard.

THE MANURIAL PRACTICES at Mildura have undergone more changes in recent years than perhaps any other activity on our vineyards. The changes have been mainly in the direction of increased

est in, and a more intelligent use of fertilisers during the past few years.

The Lime Contents of Land.

The decision as to whether lime is necessary on our lands is rendered difficult by the fact that most of our soils and sub-soils show a high lime content. I have not yet experienced a case in our (Mildura) district where lime has been necessary as a corrector of soil acidity. Nevertheless, an improvement in yield frequently follows a dressing of lime or Gypsum. The result is probably due to the action of the lime in rendering the soil more friable, with the result that much better tilth is secured.

On the older parts of our settlement the action of lime in freeing other plant foods is also of value. Where a definite improvement in soil texture follows the use of lime, or gypsum applications are certainly warranted.



Picking Sultanas in a Mildura Vineyard.

quantities and of recognition of the necessity for the three plant foods—**Nitrogen, Potash, Phosphoric Acid**—on our present experimental data we must recognise:—

- (a) That dressings of 4-6 cwt. of superphosphate, or its equivalent are warranted.
- (b) That it is payable at least on many lands, to supplement by application of a nitrogenous fertilizer, the supply of nitrogen resulting from the cover crops.
- (c) That on old vine land increased yield results from the use of potash, or, alternately, from liming to render the potash available.

We must recognise that shortage of any one of the plant foods commonly added (Nitrogen, Phosphoric Acid and Potash) may have the effect of limiting yields, so the importance of having a proper balance of plant foods in the fertilisers that we use thus becomes apparent.

The number of field experiments in our viticultural districts is increasing each year, and quantitative recommendations are becoming more possible. It is pleasing to note a greater inter-

The Extent of Disease in a Vineyard.

In a season favourable to their development, no one fact influences yield to the extent that occurs through ravages of our common fungal diseases.

Recognising this, we must, in a bad season, make the treatment of disease at the right time a first call on our time and energies, otherwise very faithful work in other directions may prove useless for the season under consideration.

As Black Spot and Downy Mildew have on occasions each showed their capability of taking 100 per cent. of the crop, they have unfortunately established their right to a first earnest consideration.

(To be continued).

It is an old, old story with mankind, this search after easy gold—more rife to-day perhaps than ever before. Yet the most unfailing lode mankind has yet discovered is reached through productive work, thrift, honesty and foresight. It rarely fails to pay satisfying dividends. — "The Country Gentleman."

AUSTRALIAN GRAPES, LEMONS, PASSION-FRUIT TO NEW ZEALAND.

Abolition of Duty Advocated.

Strenuous efforts are being made by the New Zealand fruit trade to get the duty removed from Australian Grapes, Lemons, and Passion-fruit. Mr. E. O. Reilly, of Dunedin, forwards copy of reply received from the N.Z. Customs, as follows:—

Customs Department, Wellington,
5th October, 1923.

Sir,—

I am directed by the Minister of Customs to acknowledge receipt of your letter of the 19th ultimo, and in reply to inform you that your request that the duty on Grapes, Lemons and Passion-fruit should be removed or reduced will be considered on the first occasion on which the Tariff Schedules are under review.

These questions will also be considered when Tariff negotiations are resumed with the Commonwealth.

I have the honour to be, Sir,
Your obedient servant,
(Signed) GEO. CRAIG,
Comptroller of Customs.

Mr. Reilly makes the following comments:—

"You will see by the foregoing that if sufficient pressure is brought to bear on the Government, and Australia is out to reciprocate, there is no doubt the Minister here will give our request his very favourable consideration, especially in regard to the duty on Grapes. We are not so sanguine in regard to Lemons and Passion-fruit, but we certainly think that he will assist as far as possible in having the duty on Grapes removed."

KENDENUP (W.A.) AFFAIRS.

Royal Commission to Inquire.

Mr. Ross McDonald, barrister and solicitor of Perth, has been appointed a Royal Commissioner to investigate the affairs and transactions of the Kendenup Fruit Packing Company and the De Garis Development Company with a view to ascertaining whether there has been (a) misrepresentation or fraudulent misrepresentation to the settlers or debenture holders, and (b) criminal act on the part of any person or persons concerned.

ANTISEPTIC TREE PRUNING.

Guarding against Pear Blight.

As a disinfectant of wounds in Pear trees, found necessary to guard against Pear blight, the California Department of Agriculture has obtained the best results from a mixture of one ounce each of mercuric chloride and mercuric cyanide in four gallons of water. The mercuric chloride was found most suitable for disinfecting the pruning tools.

Export of Fresh Fruit

NEW GRADING REGULATIONS FOR APPLES AND PEARS.

Unauthorised Additions by Customs Department completely alter Decisions of Growers' Conference.

PROTEST LODGED BY GROWERS

ASTONISHMENT and regret are freely expressed at the action of the Commonwealth Department of Trade and Customs in gazetting new grading regulations governing the export of fresh Apples and Pears, which completely violate the decisions of the Australian Advisory Fruit Council and the Australian Conference of Fruitgrowers.

The Advisory Fruit Council is on its trial.

Already it has suffered in prestige. Regulations governing the export trade were carefully drawn up and submitted to the Department of Trade and Customs to be gazetted. It was thought that these regulations were final, for quite sufficient ink had been shed over their preparation.

On going through the Departmental channel, however, extra provisions were added which completely nullified the decisions of the Conference.

Growers' representatives are asking why they should waste their time in preparing these regulations if they are to be coolly set aside, and new provisions added by inexperienced men.

We set out side by side the original decisions of the Conference and the additions by the Department of Trade and Customs.

(1) "Standard" Grade.

Conference Decision.	Unauthorised Additions.
... Sound, clean, etc., . . . provided not more than 10 per cent. be packed of Apples and Pears slightly blemished by rubbing, black spot, fungus, or caterpillars.	... Provided that no one of the four blemishes mentioned is found on more than five per centum (by number) of the Apples and Pears in any case.

This unauthorised addition has the effect of cutting down the margin of blemished fruit by one-half, thus completely altering the intention of the regulations, as approved by the Fruit Council.

(2) Plain Grade.

Conference Decision.	Unauthorised Addition.
... Apples and Pears of one variety and size, not seriously blemished . . . fruit slightly blemished by rubbing, black spot, fungus or caterpillars . . . not to exceed 30 per centum.	... No one of the four blemishes mentioned is found on more than 10 per centum (by number) on fruit in any case.

Western Australia

COMING SEASON'S PROSPECTS

DISTRICT NOTES

Mr. Owen Sparks, Bridgetown, writes (9/10/23):—

The season in this district is a very late one, the rainy season continuing right up to date. Very few warm nights have been experienced, and in consequence the trees are very backward, and blossoming (of Apples and Pears) only just starting.

Trees generally show promise of good crops, which, after the heavy bearing of last season, was not to be "banked" on, and given favorable weather when the bloom is setting, a good average crop ought to materialise.

There is not much spraying wanted here in November, unless the Spring beetle is troublesome; for this, we use arsenate of lead. Aphis is not as bad as one might expect after so much wet, but "Black Leaf 40" can cope with that.

Apples and Pears are the principal fruits grown, and although all stone fruits do exceedingly well, the distance from markets (nearly 175 miles) renders them unpayable.

Jonathans, Cleos, Dunn's, Yates, Granny Smith, Rokewood, Delicious, Dougherty and a few others are the principal Apples grown, and in Pears, Bartletts, Josephine and Winter Nelis are the most favored varieties.

The last export season was a disastrous one, and the local market prices were lower than normal, but really prime Apples generally command a good price in Perth.

W.A. State Advisory Board.—The Government is providing £150 a year, and finding secretary, stationery, postage, etc.

Fruit Distribution.—A scheme is being started for better distribution of fruit, and the Commissioner of Railways is going to carry single case lots, by passenger train where possible, from any station to any station at a flat rate of 1/6, and is advertising on all stations.

The scheme is somewhat on the lines of what the railways are doing in Victoria, and it is hoped this may mean a bigger consumption of fruit.

Export.—The cost of getting the fruit to the consumer in London must be lowered, and the only way I can see is by co-operation amongst growers, and a fund raised to have a representative in London to control sales, divert fruit to provincial towns, when the London market is glutted, and generally look after growers' interests.

We cannot, in this State, see why we should have to pay the same freight to London as the Tasmanians do; surely it must cost something to

keep refrigerating engines going between Hobart and Fremantle, and we claim we should pay less.

With the visit of the Prime Minister lately, succeeded by that of the Governor-General and several Federal Ministers, we hope soon to find that Western Australia is on the map, and does form part of the Commonwealth of Australia, and that we shall get better treatment than we have had in the past.

Our only jam company has gone into liquidation, owing largely to the dumping of jams by firms in the Eastern States, which should never have been allowed.

Donnybrook. — Mr. Gus. Sharp, "Hale Mauka," Donnybrook (W.A.), writes:

This season is without precedent, i.e., within the period of commercial fruitgrowing, for late flowering.

At time of writing, October 13th, Apple and Pear blossom, generally speaking, are not unfolded, and it would not be wise at this stage to make a forecast.

Stone fruit blooming is proceeding very slowly.

The past week has been the longest fine weather period since April, and whereas the precipitation (between 50 and 60 inches) is not a record, I think the number of rainy days might lay claim to such distinction.

A rather wide range of fruit is grown here, being just on the border of profitable citrus culture. Pip fruits predominate, and stone fruits, with the exception of Apricots, are plentifully grown.

Seasonable work is backward, owing to constant showery weather. Spraying with fungicides will extend well into November.

Although last season's export results were anything but satisfactory from a financial point of view, preliminary applications for coming season are optimistic.

A general conference has been called for November 29th to discuss marketing problems and elect a new Advisory Board.

British Empire Exhibition. — Arrangements are being speedily completed for the fruit display at the British Empire Exhibition in London next year. We acknowledge having received from the Tasmanian Committee a drawing of the handsome fruit trophy for fresh, preserved, and dried fruits. This reflects credit on designers.

PASS IT ON.

When a bit of sunshine hits ye,
After passing of a cloud,
When a fit of laughter gits ye,
An' your spine is feelin' proud,
Don't forget to up and fling it
At a soul that's feelin' blue,
For the minit that ye sling it,
It's a boomerang to you.—Anon.

New South Wales

DISTRICT NEWS AND NOTES

5,600 Tons of Peaches and Apricots on Murrumbidgee Irrigation Area

Murrumbidgee Irrigation Area Notes.

Crop Estimates. — Some general indications are now in evidence in respect to the prospect for fruit crops this year. Taken as a whole, the outlook is fair.

Apricots. — Medium for Trevatt's, which are about 80 per cent. of the plantings; Moorparks, light.

Peaches. — Golden Queens and Pul-lars, heavy to medium; but an attack of Peach Aphis exists, which, if not properly combated, will have a serious effect on the returns. Most growers are finding "Black Leaf 40" quite effective.

Prunes are medium.

Vines have made a splendid break.

No spot appears to exist this season, the weather having been all in favour of the growers. Careful attention, however, is being given to precautionary spraying of the vines.

Hail at Leeton. — A severe storm resulted in some losses in Apricots, which were damaged to the extent of disfigurement of the fruit. Comparatively little was knocked off, however, and no doubt the damaged fruit can be salvaged by drying.

Canning. — The offer of the Federal Government to provide a subsidy for the canning fruit industry was received with relief by the M.I.A. growers, who, at a meeting held at Leeton, agreed that under the circumstances the prices fixed were reasonable. The crop in sight for 1924 is considerable—will probably not be less than 4,000 tons Clings, 1,000 tons Slipstone Peaches, 600 tons Apricots. This is beyond the capacity of the local State-owned cannery, so that in the event of the canners not accepting the Government's conditions, the growers will be placed in a difficult position in disposing of their fruit.

Last year's Federal pool has not yet been cleaned up, owing to the withholding of payments from the authorities. The final 10 per cent. has not yet been received, although promised some time back by the Minister for Customs.

Griffith Show. — The Annual Agricultural Show was held at Griffith on the 17th and 18th October. A fine exhibit of citrus fruits was staged. The improvement in the quality of the fruit over previous years was very marked, and indicates that as the trees age and settle down, the crop becomes more commercial and more in line with the produce of other districts. Until recently the large size and coarseness of the fruits, especially Navel, militated considerably against

their satisfactory sale.

Valencias. — The main crop is now being marketed, and returns are proving good. Owing to heavy winds the tonnage has been greatly reduced, a fair proportion having to be marketed as windfalls. The effect of Brown Scale is very marked this season, and growers will need to spray, otherwise the consequent deterioration in the appearance of the fruit will prevent the good returns they expect.

Scale Parasites. — The Entomological Department of New South Wales is interesting itself in the subject of introducing scale parasites to the Area. Preliminary tests, which have been progressing at Yanco for some years, have shown that three varieties of Chalcid Wasps are natural checks on the Olive Brown Scales which infest the citrus of the Area.

Steps are now being taken to establish breeding and distributing centres on the Area, from which it is hoped the parasites will spread and eliminate the Brown Scale.

Soldier Finance. — Further steps are being taken by the soldier settlers to obtain Government assistance in providing for the necessary plant, buildings, cases, etc., to enable them to market their crops in the coming season. Mass meetings at Yenda and Griffith decided on a petition to the Premier of New South Wales, and Messrs. Norman and Connors were sent to Sydney to further the matter in person.

Orange.

We experienced some very wintry weather here last week; am afraid it will affect the setting of stone fruits; the Plums were in bloom, and Cherries just blooming; from the quantity of bloom they could stand a little thinning.

With the exception of the cold snap last week, the prospects for the coming season are very bright, although, unless it warms up considerably, the season will be later than usual.

Black Spot is likely to be very prevalent this season, and will bear careful watching. Spraying with Lime-Sulphur at "pinking" stage is quite the general thing, and is found very effective. At this stage we use Lime-Sulphur at the rate of 1 in 12 for Apples, and 1 in 15 for Pears. use Lime-Sulphur at the rate of 1 in

Later sprayings we use Lime-Sulphur 1½ to 50 in conjunction with Arsenate of Lead.

Lime-Sulphur is also very effective in controlling Powdery Mildew.—W. West, 18/10/23.

Fruitgrowing Under Irrigation.

Fruit Shows: Budding Citrus Trees.
(By Our Special Correspondent.)

SHOWS ARE THE ORDER of the day, commencing with the September Show of the Royal Agricultural and Horticultural Society of South Australia, held in Adelaide. Then followed the Waikerie, Loxton and Renmark fixtures, the Berri Show being held on the 18th October.

The whole of these Shows have a special interest to dried and fresh fruit growers, but in some instances the fruit sections do not get the support from growers that they should. Especially is this the case in the dried fruit section in the Adelaide Show. There were only two exhibitors in this section, viz., Messrs. T. B. Robson & Son, of Hectorville, and the Department of Agriculture, represented by the State Experiment Orchard, Berri.

The exhibits of dried fruit were excellent, and were representative of the high quality fruit produced on the Adelaide plains and in the Murray Valley. Messrs. Robson & Sons' Prunes were a credit to the firm, and the Figs from the Berri State Orchard left little to be desired.

The silver medal for the best collection of dried fruit was awarded to the Department of Agriculture.

At the River Shows, as is to be expected, the citrus fruits and the various classes of dried fruit were well contested in most instances. The Washington Navel and Late Valencia classes were large, and the judges had difficulty in selecting the prize-winning exhibits.

BUDDING CITRUS TREES.

IN MANY CITRUS PLANTATIONS there are seen trees that have died down below the bud, and have developed from the root stock. These trees are of no commercial value, and should be budded over as early as possible to the desired variety. Also one sees many trees that are unprofitable, producing but light crops of large coarse Oranges, especially where the plantation consists of Washington Navel variety.

Californian works tend to show that there are various strains of the so-called Washington Navel, and that by carefully kept records one is able to state which trees are profitable, and which are failing to pay their way. Records also show which trees are producing regular crops of high quality fruit.

The advice given is that the trees which are unprofitable should be worked over to buds selected from those trees that have given satisfactory returns.

Some of the Orange trees in the State Experiment Orchard have been worked over in this way, and growers are watching with interest the growth of these trees, and when the trees fruit again much valuable data will be gathered as to the advisability of the practice under local conditions.

Where trees are small, buds may be inserted directly into the main stems; where somewhat larger, into the main arms. As the trees age and the bark thickens, it becomes necessary to cut back the main limbs to within 6 to 12 inches of their base to force out new growth which can be easily budded over.

The trees should be cut back during mid spring to late spring, say from the middle of September to the early part of November.

As the Orange bark is very susceptible to sun scald, every care should be taken to protect the exposed bark; this may be done by coating the whole of the stem and arm butts with a coat of thick whitewash.

In the very hot areas, this is not always sufficient, and best results are obtained by loosely wrapping the tree with straw or even hessian coverings.

The large cuts on the arms should be coated with a wound-covering, such as grafting wax or thick paint, care being taken in the case of the paint not to apply it too thickly.

Should the paint run down the bark of the tree, the bark in most instances will be destroyed.

This wound covering will tend to turn off moisture from the cuts, and prevent decay setting in.

Citrus trees may be budded throughout the summer months, during the time the sap is flowing freely. Should the sap flow be restricted and the bark fail to lift readily, little success will result if budding is carried on.

The best seasons for budding are in spring and autumn, during the time the trees are making new growth.

Trees headed back in spring will be in a condition to bud in autumn; these buds may be forced into growth the following spring.

Care should be taken when forcing the new buds into growth, to retain several of the smaller shoots arising from the stock. These shoots serve two purposes: Firstly, they assist in shading the bark of the tree from the direct rays of the summer sun; and, secondly, they absorb the superfluous sap supply.

Should the whole of the sap supply be diverted into the few buds and the

resulting growths, these young tender shoots would not be able to absorb the whole supply, consequently many of the cells would burst, due to severe pressure of the sap. The rupturing of the cells would, in most cases, cause the death of the tender shoots arising from the buds.

As the shoots grow and the wood ripens, the shoots arising directly from the stock may be reduced back from time to time until the whole of them are removed.

The following remarks can be applied to spring buds, but in most cases these buds are forced into growth a few weeks, say, 5 to 6 weeks after they are inserted. The buds may be started by partially cutting the budded shoot above the bud, or by ringbarking it. It is not always advisable to cut the shoot right off until the new growth from the bud has had time to harden.

Budding Methods Described.

Coming back to the method of budding, one should select nicely-matured round shoots from the desired trees, on which the buds in the axils of the leaves have not shot. The leaves should immediately be cut off, leaving about $\frac{1}{2}$ inch of the leaf stalk.

At times, round wood is difficult to secure, and one needs to select the younger angular wood.

After preparing these shoots, which are known as bud sticks, they should be immediately wrapped in a damp cloth, to prevent the sap drying out.

The stocks are then thinned out if more shoots are found on them than necessary, care being taken (as previously advised) to leave as many of the smaller shoots as possible to shade the stem and arms.

A T incision is now made in the stem in the case of small trees, or in the arms of new shoots of older trees. The vertical cut is made first and the horizontal cut made either at the base or the bottom of it.

Some propagators prefer the inverted T cut, but equal results can be secured by the horizontal cut being made at the top, and added to this it is a more convenient method of performing the operation, especially for beginners.

The bud is now cut from a bud stick, the stick being held in the left hand; the blade of the knife is passed under the bark, commencing about $\frac{1}{2}$ inch below the bud, and is drawn just under bud and out again about $\frac{1}{2}$ to $\frac{3}{4}$ inch above the bud.

In expert hands buds can be cut with but little wood left in them; these buds can be inserted straight into the stock.

Where a piece of wood has been removed with the bud, it is advisable to remove it. This is done by holding the bud between the first finger and thumb of the left hand and gently squeezing the bark, at the same time the wood is eased from the bottom of the bud with the knife blade, and if the bud is in good condition the wood comes away freely. Care should be

exercised in the operation, as the heart of the bud is liable to be drawn out, in which case the bud is of no value.

Should the bud stick be of angular wood, it is advisable to cut with one side of the bark retained on the bud wider than the other, as this will give a flat surface, whereas if the angular wood is cut with the bud in the centre, a central groove will be noticed in the bud. This, of course, makes it difficult to draw the bud close to the stock, as an air space is left under the bud which prevents the bud from uniting with the stock.

When the T incision is made in the stock, it is advisable to slightly raise the bark, in order that the bud may be slipped easily under it. The bud is now held by the retained portion of leaf stalk, and is gently forced down under the bark as far as it will go into the stock.

The stock must be firmly bound in order to exclude all air from the incision, and to keep the cut undersurface of the bud in close contact with the sap wood of the stock. The ties used for this operation are varied, the raffia fibre perhaps is in most general use. Budding cotton sometimes is used, and waxed cloth is also preferred by some.

After two weeks the buds may be examined, and in this operation the retained base of the leaf stalk serves a very helpful purpose. Should the bud have united with the stock (or, in other words, to have "taken"), the leaf stalk will part freely from the bud; if the bud has failed to "take," the leaf stalk remains on the bud sheath. Where buds have failed the trees should be immediately re-worked.

The ties should be loosened around the buds, as the expanding tissues are liable to be cut by the tight bands, and the buds may be destroyed. The ties may be removed within 5 to 6 weeks, and the trees treated as described earlier in the article to force the buds into growth.

Strapping Fruit Cases.

An interesting exhibit in the Agricultural Hall at the Royal Show, held in Melbourne recently, was the "Ti-it" wire strapping machine. The demonstrations that were given throughout the Show attracted much attention, and onlookers expressed their satisfaction at the rapid and effective manner in which the cases were strapped. The machine is simple to operate, and provides a cheap and efficient means of reinforcing fruit cases, thus rendering them pillage-proof at a minimum cost. Wire strapping has been adopted in the fruit export trade in New Zealand and other countries, including Canada, and the United States have also adopted it because of its insurance against damage and pillage of fruit. Particulars from Messrs. Nobel, Murray and Lemon Pty. Ltd., 135 William-street, Melbourne, Vic.

South Australia

Annual Conference of Fruitgrowers' and Market Gardeners' Association.

Export and Local Markets. Reduction in Export Freights Advocated.

THE THIRTEENTH ANNUAL CONFERENCE of the Fruit-growers' and Market Gardeners' Association was held at Adelaide recently. There was a good attendance of delegates, the President of the Association (Mr. C. T. Fisher) being in the chair.

The Minister (Hon. G. F. Jenkins), in opening the Conference, expressed sympathy with growers who had suffered on account of the recent heavy floods. There was over-production of Peaches in Victoria and New South Wales owing to heavy plantings by the Government and the growers. Plum shipments overseas were satisfactory. He was glad to notice the increase of co-operative enterprise in the erection of cool stores under the Loans to Producers' Act. He hoped that the cool stores would become the nucleus of an organisation of growers for the sale of fruit by case direct to country settlers. With regard to the Standard Case Act, the Government could not permit the use of undersized cases, and such cases, if discovered by the inspectors, would be confiscated. The Government had assisted the Citrus Growers' Association in experimenting with citrus by-products. Samples of oil of Lemons and oil of Oranges were of the highest possible quality, and the only question was whether there would be a market for essential oils and fruit juices.

The General Secretary (Mr. E. Naughton) submitted the report and the balance-sheet, which showed receipts £309/17/10, expenditure £277/3/8, and credit balance £32/14/2.

The President, in his report, referred to the Australian Fruitgrowers' Conferences in Melbourne (to which delegates had been sent), and which were doing good work in reducing freights, finding new markets, and standardising grades for export. The Federal Government had been approached for an increased duty on imported Almonds, kernels and brandy, also a reduction of the excise duty on brandy of local manufacture. Referring to the second experimental shipment of Plums to England, he said the venture had proved highly successful. Rail freights of Tomatoes and Grapes to Melbourne had been reduced by 20 per cent., and they would probably get a concession for soft fruit to be sent at the rear of the East-West express. New branches had been opened at Balhannah and Williamstown. The former was a sectional branch. He had introduced the idea of sectional branches for the benefit of Grape growers, but Apple and Pear growers were rapidly taking up the idea. Altogether 101

new members had joined the Association, and 37 left during the year, making the present total 720.

Officers elected:—President, Mr. C. W. Giles; Vice-President, Mr. J. B. Randall, M.L.A.; Executive Committee, Messrs. C. T. Fisher, J. Donaldson, W. J. Hannaford, C. G. James, T. H. Hayman, C. H. Ragless, T. B. Robson, H. Wicks, H. H. Pitt, and F. Wicks.

Reduction of Freight.—Mr. W. J. Hannaford, of the Gumeracha branch, proposed:—"That strong recommendations be made to the National Fruit Council for their sympathy and active support in bringing about a substantial reduction in freights, and general improvement in conditions for carriage and sale of fresh fruit in overseas markets." Mr. J. B. Randall seconded, and the motion was carried.

Suburban Markets.—Mr. J. P. Downey (Campbelltown) read an article from the "Fruit World" describing the open air markets in Melbourne suburbs, and moved—"That the conference appoint a committee to consider the advisability of establishing suburban markets for garden produce." Mr. A. H. Mazure seconded. Carried.

Plum Export.—Mr. W. R. Gray (Kersbrook) moved:—"That a Plum grower be sent to England with next season's first shipment of Plums, as introducing agent." Mr. J. B. Randall seconded, and with an amendment that the matter be referred to the Executive the motion was passed.

Matters of detail affecting the Association were dealt with and the conference closed.

ANSWER TO QUERY.

Spraying Apricot Trees.—"Digger," Tongala, writes:

In the September issue of the "Fruit World" we notice that Lime-Sulphur spray is not recommended for Apricot trees. As we have used this spray on such trees with no apparent ill-effect, we shall be pleased to know what harm is likely to result.

Answer.—Mr. C. C. Brittlebank, Victorian Government Plant Pathologist, whose experience was quoted in the article referred to, states that Lime-Sulphur, if used continuously upon Apricot trees, causes the leaf and fruit to become small. One season, or perhaps two, would not affect the trees to a very market extent.

DON'T BE CRUEL TO YOURSELF.

If someone advised you to take a few herbs after your meals, herbs that did not purge or were drastic in operation, but just helped you to naturally digest all the food you had eaten, would you worry with medicine? For the sake of convenience, A.M.S. is compounded of herbal juices, and can be swallowed in a small dose after every meal. Its effect is wonderful. The appetite improves the liver and stomach becomes normal, and even the oldest man, dyspeptic though he be, feels fit and ready for a game with the kids. Sold by all chemists 8/-, or by post 3/6 per bottle, from T. A. Dickson, Chemist, Geelong, Vic.

Dried Fruits Conference

Big Meeting of A.D.F.A. in Melbourne.

Reorganisation Proposed.

Substantial Increase in Production. Local Prices Reduced.

THE Annual Conference of the Australian Dried Fruits' Association was held in Melbourne at the end of October. About 80 delegates attended from the several States, Victoria, South Australia and New South Wales. The Secretary presented the Annual Report, showing that a total production of all dried fruits in Australia during the year was 27,003 tons, an increase on the 1922 figures of 6,549 tons. The Sultana pack, which reached 12,541 tons, was easily a record, and with the larger areas coming into bearing each year, it was anticipated that the next few years would show a marked increase in production.

Although the quality was good, the results on the London market, to which the bulk of the Sultana crop was reported, were not nearly as favourable as in 1922. The Lexia output—4,898 tons—was also a record. The total quantities of the different varieties of dried fruits produced in the Commonwealth during the 1923 season were as follow, in comparison with the 1922 season:

	1922.	1923.
	Tons.	Tons.
Apricots	293	695
Peaches	422	443
Nectarines	27	44
Pears	174	40
Currents	6,754	8,234
Sultananas	8,980	12,541
Lexias	3,747	4,898
Muscateles	88	70
Prunes	—	72

The total net sales of locally-grown Currents, Sultananas and Lexias in the Commonwealth have decreased considerably since 1919, but last year's figures are substantially higher than that for 1916. The sales of these three products in Australia were as follow:

	Tons.
1916	7,901
1917	8,399
1918	9,457
1919	10,516
1920	11,030
1921	8,338
1922	9,636

It is interesting to note that during the 1923 season, of the total production of 27,003 tons of all varieties of dried fruits, 19,486 were grown in Victoria, as against 13,213 tons in 1922, 7,183 tons in South Australia, 315 tons in West Australia and 19 tons in Tasmania. The export proportions in 1923 were:—Currents, 62½ per cent.; Sultananas, 65 per cent.; Lexias, 80 per cent.; Apricots, 60 per cent.; Peaches, 40 per cent.

With regard to future prospects, the secretary said that production was increasing rapidly throughout the world, and it was safe to say that the period of high prices had passed. In view of the fact that buyers in export markets spoke very highly of Australian dried fruits, it was expected that top prices would be realised, provided quality was maintained.

The Conference was conducted in camera, and the official report will be published later. It is understood that there is an insistent demand, particularly on the part of the newer settlers, for a complete re-organisation of the A.D.F.A.

QUALITY DEHYDRATORS

J. H. MORTON, A.M.I.M.E.

Consulting Industrial Engineer

Bank of N.S.W., SYDNEY, and
369 POST OFFICE PLACE, MELBOURNE

Inventor-Designer
WORLD RENOWNED

“Morton Efficiency” Dehydrator

(By Royal Letters Patent)

(Adopted after elaborate Official Tests
by H.M. Imperial Govt.)

Consultations and Reports on EVERY
DESCRIPTION of DRYING APPLIANCE.

Write NOW!

Doubtless between the enthusiasm and driving force of the younger members and the mature experience of the older leaders of the Association, there will be drawn up a workable scheme for re-organising the A.D.F.A.

A report, written by Mr. W. B. Chaffey, dealing with his mission in England in conjunction with Messrs. Dougal and Meares, was presented to the Conference. This report urged that it would be unwise to endeavour to sell in England outside the London Dried Fruits Distributors' Association. The Empire Exhibition afforded a wonderful opportunity for advertising Australian Dried Fruits.

Mr. A. S. Hopkins addressed the Conference, giving close details of the experience gained in the recent trip abroad.

With regard to the Publicity Campaign, it is understood there is still a debit of over £30,000 to be adjusted.

We regret to state that Mr. W. B. Chaffey, President of the Australian Dried Fruits' Association, was prevented through illness from attending the Conference sessions.

An Optimistic Outlook.

In an interview, Mr. A. S. Hopkins, General Manager of the Mildura Co-operative Fruit Co., stated that the quality of Australian Dried Fruits was of a high standard, and would win its way in the markets of Great Britain and Canada. If the proposed preference of ten guineas per ton for empire-grown dried fruits entering Great Britain were confirmed by the British Parliament, and if reciprocal trading arrangements were made with Canada, there would be a ready outlet for the anticipated crops of dried fruits from the areas already planted in Australia.

Reduction of Prices.

Following a decision of the A.D.F.A. Conference, it has been decided to reduce local prices of dried fruits as follows:—Sultananas by 2d. a lb., Lexias 1½d. a lb., Apricots 4d. lb., Nectarines and Peaches, 2d. lb.

Currants have been increased 1d. per lb.

NEW SOUTH WALES.

Report from J. Buchhorn, Lavington, Albury:—

Last season crops were good all round—quality not up to usual standard, owing to drought, with exception of Prunes and Grapes, latter being particularly good. At Royal Easter Show (Sydney), Lavington Grapes scored first prize in each entry made, including 12 varieties (table). This was the first attempt in individual classes.

In present season, owing to very wet conditions and several severe heat storms, settings expected to be light.

Prunes—D'Agen, Robe de Sergeant and Angelina, flowering very heavily.

Peaches—Mainly early varieties; flowering only fair.

Apples—Jonathan, Rome Beauty, Granny Smith—flowering just coming; have better chance to set if conditions turn favourable.

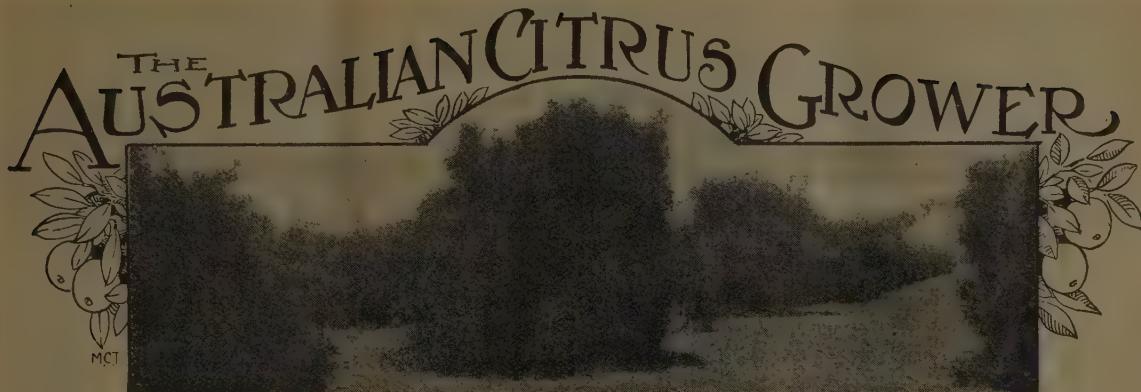
Pears—Williams' Bon Chretien, Packham's Triumph, Josephine—exceptionally heavy flowering.

Grapes—We produce wine Grapes, Zante Currants and table varieties—Waltham Cross is the very best locally, next being Black Cornichon, Red Prince, Snow's Black Muscat. Very late shooting, so should not be affected by late frosts.

We are now spraying with Lime-Sulphur and Bordeaux for funguses.

Don't work the horses with a collar that does not fit. Keep the collars and pads clean. Keep the harness adjusted. Do that and avoid sores.

A smile has more than its face value, and if you can't smile, imitate someone who can.



EXPORT OF CITRUS FRUITS.

The "Marston" Process on Trial.

Can Oranges be Treated as Successfully as Lemons?

In the "Fruit World" last month we published the news of the successful export of Lemons after being dipped in a harmless solution discovered by Mr. H. R. Marston, a scientist attached to the Adelaide University.

The news aroused considerable interest.

Mr. J. A. Parkes, Secretary of the Murray Citrus Co-operative Association (Australia) Ltd., supplies the following additional information:

"Apart from the few cases of Lemons shipped to Denmark and back, very little has been done. On September 1st I had four cases of Navel Oranges treated and forwarded to London ex 'Largs Bay' for return to Adelaide. Messrs. Marston & Hooper sent a few cases of Oranges by same boat.

"Further experiments are being made, but so far as Oranges are concerned, no definite conclusion can yet be arrived at. Mr. Marston seems sanguine that Oranges can be treated with as great success as Lemons.

"If this expectation is realised, the commercial value of the process to the industry will be tremendous. It will mean not only reduced freights for overseas shipments, but a guarantee that fruit will arrive in good condition, quite a big factor to some of the citrus exporting States, whose fruit is not landing in first class condition. It will also mean extending the Commonwealth marketing period.

"An option over the process so far as the Australian rights are concerned has been secured for the Central Citrus Associations of Australia."

CITRUS GROWERS ORGANISING.

Western Australia has agreed to the formation of a Central Citrus Association, and the appointment of a representative of the Federal Citrus Council. Mr. J. A. Parkes, Secretary

of the Murray Citrus Association Ltd., attended a conference of growers on August 22 in the joint interests of the Victorian Central Citrus Association and the Murray Citrus Association. A detailed and comprehensive report has been prepared by Mr. Parkes.

PARASITES HELP TO SAVE CITRUS FRUITS.

Black Scale Controlled without Spraying or Fumigation.

THE FRUITGROWING INDUSTRY of United States of America is recognised to be of such importance as to warrant the appointment of specialists to study every branch of production and pest control.

Scientists are sent forward to all corners of the earth to obtain seeds of new varieties and parasitic insects which prey upon the orchard pests. Success has attended the work of the entomologists in discovering and breeding beneficial parasites.

In an article in the "American Fruitgrower," written by Christine Emery, it is stated that when the citrus growers of California awoke to the fact that the black scale was proving immune to the supposedly deadly treatment of fumigating gas, they cast about for some other means to cope with what was a really desperate situation.

Finding that a similar outbreak of scale had been controlled in Africa by means of the "application of its natural enemies," a consignment of tiny insects known as *Scutellista Cyanea*, was introduced into Californian citrus groves. Although making an appreciable reduction, the *Scutellista* did not cope with the whole situation, and the scale continued to breed in vast numbers.

Help from Australia.

The Californian Department of Agriculture came to the aid of the growers, and in 1919 brought from Australia a shipment of *Aphytus Lounsburyi*, an internal working parasite whose prowess in destroying

scale of established growth, speedily proved it to be worthy of thorough trial in California, especially when supplemented by the efforts of *Rhizobius Ventralis*, or the black lady bug beetle, also an importation of Australian origin; for the twain apparently approving of climatic conditions in South Western California, quickly "got down to business," and showed their ability to successfully exterminate black scale in its middle and adult stages.

Field experiments and breeding tests carried on at the Limoniera Ranch at Santa Paula, California, were conducted with gratifying success, as the *Scutellista*, *Aphytus* and *Rhizobius* cleaned the trees so effectively that fumigation was safely withheld for two years in order to give ample opportunity to show the efficacy and superiority of the allied and voracious little workers.

Mr. H. S. Essig, a prominent entomologist, who performed this pioneer work so efficiently at Santa Paula, took charge of the plant of the San Gabriel Valley Pest Control Association at the Lamanda Park, East Pasadena.

A Large Insectary.

In the well-planned buildings that comprise the insectary, Mr. Essig, in less than one year of taking charge of the plant, distributed more than one million scale eaters to the fruit-growers on the surrounding 5,000 acres. Within the confines of the larger building, which has a floor space of 16 x 120 feet, with a cellar 16 x 40 feet, and the upper floor arranged in a series of six compartments or rooms, is a mammoth nursery where these parasites which will control the black scale are being made to justify their existence. The width of the building makes it possible to arrange two rows of racks along the eastern and western exposures, and these racks are filled with cuttings from trees badly infected with scale thereby.

Eliminates the Red Spider.

Red spider is another old-time enemy which California grove owners sought to control with sprays until a

beneficent discovery was made when, on checking up on a grove that had been actually over-run with spider, it was found that at the end of the two-year period of time previously mentioned, the "natural destroyers," when allowed to breed, had fed upon the spider with such energetic partiality, that this pest, as well as the scale, had been automatically eliminated.

Entomologists who had been conscientiously studying the problem declared that the "liberal doses of spray," through which the spider passed with unimpaired vigor, had completely destroyed the "natural enemies" which, given the right to live would have determinedly put the spider out of existence.

The truth of this assertion was made plain to doubting orchardists when a portion of a mildly infested area was sprayed and the remainder was given over to the predatory parasites for, in a few months, the sprayed section was found to be a prolific habitat for both spider and scale, while the portion where the Predatores were working was cleaned to such an extent as to show an almost complete elimination of these pests.

Foe of the Meal^v Bug.

Mealy bug, another noxious insect which has caused great anxiety to growers, is now retreating in defeat before the voracious maw of *Cryptolaemus Montrouzieri*, which evinces a "natural tendency" to lay its eggs in the mass of the mealy bug, finding an ideal downy "incubator" in the cotton-like excretions. *Cryptolaemus* is assigned to separate quarters from the scale eating fraternity, although, in the cellar underneath the scale insectory are the frames where row upon row in hundreds of spaghnum lined trays, the layers of potatoes are sprouted to furnish succulent food for the hungry mealy bugs which are transferred in relays to the specially built laboratory where the *Cryptolaemus*—which resembles flakes of hoar frost—proceed to feed upon these fat morsels of mealy bug ere they lay the eggs that mean the ultimate destruction of their erstwhile hosts.

SELLING THE CITRUS CROP.

Melbourne Agents State Their Case.

Harmony Between Grower and Distributor is Essential to Progress.

In reply to the article in last month's "Fruit World," contributed by Mr. B. S. B. Cook, Secretary of the Victorian Central Citrus Association, the following has been submitted for publication by the Wholesale Fruit Merchants' Association of Victoria:

We believe the V.C.C.A. to be a useful organisation if conducted on the right lines, but the propaganda issued by Mr. Cook shows him to be a clever penman, though apparently quite ignorant of the business of marketing fruit.

Growers this season (as well as last season) are paying not only their Association levies, but are paying in hard cash for the marketing experiments adopted.

With over a quarter of a centur's experience behind us, we know our business. That experience is freely at the service of the growers, whom we respect, and desire to serve efficiently.

Organisation amongst growers is excellent and necessary. It has worked well in United States of America, as recent articles in the "Fruit World" show. But the marketing business is handed over to market men, and there is no tinkering with the channels of trade.

We want to make our position quite clear in this matter, and to assert with emphasis our denial of Mr. Cook's repeated assertion that we are "out to smash the V.C.C.A."

Now, dealing with Mr. Cook's effusion, if he can write "copy" like that

terms by haggling, and that the salesman is an effeminate creature who weakly yields to the dominating personality of this "buyer."

Mr. Cook little knows of the brands of first-quality fruit which are sold "to arrive," of the country order trade, of the avenues of distribution which every progressive agent is constantly developing. Further, there are different classes of buyers of varying financial stability, and that to make a sale of a case of Navel to some buyers is in the nature of a gift, as the fruit will never be paid for.

It will take us too long in this article to go into all details connected with the business. We suggest that it would be to mutual advantage for a committee of the growers to meet a committee of the agents to go into this matter and present a report to the next Citrus Conference.

In order to be quite specific, we would state—



A creditable exhibit of citrus fruits put up by the Tresco District (Vic.) at the recent Royal Agricultural Show at Melbourne.

which appeared in last month's "Fruit World," after having only occasionally attended the markets, imagine the reams he could write if he only visited the market more frequently. Few of our members even know him by sight, yet we think it might possibly be of some service to growers if Mr. Cook would only write from first-hand information, not the theoretical, second-hand stuff, as recently published.

There is so much theory in Mr. Cook's article that practical men find it difficult to reply. We do not see through Mr. Cook's spectacles. He sells words—we sell fruit. Apparently he thinks, from his published statements, that the fruit salesman is a man who sits on an empty case, smoking a Ford cigarette, twiddling his thumbs and waiting with bated breath and thumping heart the approach of a possible buyer; that this buyer can practically make his own

(1) That the form of agreement drawn up by the V.C.C.A. for signature with the agents, needs revising in the light of practical experience.

(2) That the commission of 10 per cent. is reasonable where efficient service is required. (Conditions in Sydney and Adelaide are not comparable. Nevertheless, commission plus charges in Sydney brings them on a level with the Melbourne charges.)

(3) That the marketing experiment fixing minimum prices last year was a failure, and will not be repeated.

(4) That citrus growers have lost hundreds of pounds this season through diverting their trade into "narrow distributing channels." We shall be happy to give close details to any authorised committee of the growers.

(5) That during the present citrus season, with supplies evenly distributed, growers should have had a good time. Large supplies of fruit

however, came into the market in competition with Victorian fruit, which would not have occurred had there been no necessity for the agents to obtain such fruit to keep their channels of trade open.

(6) That the Wholesale Fruit Merchants' Association has done constructive service to the industry for the growers in improving railway transit and delivery, securing payment of claims by rail and boat, and in other ways.

(7) That Mr. Cook has made several startling suggestions re dishonesty, etc. Let him become more definite by mentioning any agent by name, and these innuendos will be corrected through the civil court.

(8) That the Farm Agents' Produce Act is in operation, under which all fruit agents are registered, their books being open at all reasonable times to the inspection of growers or their authorised representatives.

(9) That owing to the unnecessary limitation of agents, growers this season have not received full market value for their citrus fruits. Loads of fruit did not come on to the Western Market at all, but were sent straight from the railway station to dealers and sold in the Victoria Market. The profit to the dealer, amounting in many cases to shillings per case, should have been obtained by the grower.

(10) That preparations should be made well in advance for the handling of next season's crop, which, to all appearances, will be a bumper one.

(11) That there should be harmony between the growers, wholesalers and retailers, instead of friction and hard words. This is the secret of the success of the Californian Citrus Exchange.

(12) That a committee should be appointed by the growers to investigate the matter of Melbourne marketing, and present a report at next conference.

With regard to the last Citrus Conference, Mr. Cook's assertion is wrong. We desired to attend, and asked for the privilege of meeting our friends the growers in conference. Growers know very well that we did not meet them in this way. Whose was the fault that we did not do so?

In conclusion, we would state that we are not propaganda experts. We leave that to Mr. Cook, who has made a life study of that subject. But we know something about marketing fruit, that it is not so easy as it looks, and that our best services are at the disposal of the growers.

(Signed) H. M. WADE,
President, Wholesale Fruit Merchants'
Association of Victoria.

Brisbane Fruit Trade.

Mr. A. S. Krcrouse, who has been manager of the International Fruit and Produce Co., Fruit Exchange, Brisbane, Queensland, advises that he has disposed of his interest in the business to Mr. J. J. Lynch, who will carry on under the same name and address as hitherto.

VICTORIA

Horticultural Superintendent to be Appointed.
Crop Reports. Seasonable Cultural Notes. District News.
Growers' Meetings.

VICTORIAN FRUITGROWERS' CENTRAL ASSOCIATION.

The monthly meeting of Executive was held on October 16th, 1923. The President, Mr. V. R. McNab, in the chair. There were also present Messrs. Thiele, Lang, Mock, Hatfield, Bailey, Moody, Grant, Aspinall, Mair, Thomas, Foster, Carnody and Meekin (Department of Agriculture), and Secretary and Treasurer. Apology from Mr. James.

Defence Fund.—Mr. J. H. Lang reported that the final award had been made by the Court. The expenditure in connection with the case, including solicitors, witnesses, etc., worked out at £200. They only had £7 in bank. It had been decided that further applications be made to Mr. C. W. Wood, Trustee for the Rural Defence Fund, for a grant from this fund to meet expenses. If no grant was forthcoming it would be necessary to allocate the expenditure amongst the district associations on a pro rata basis.

Appointments to State Advisory Board.—A discussion took place on the claims made by the Apple Growers' Association for greater representation on the State Advisory Board. It was pointed out that the Apple growers who had largest areas under fruit had the smaller representation than the citrus, dried or canned fruits.

It was agreed, on the motion of Mr. Lang, that the State Advisory Board be asked for what term the appointments to the board were made. Also to point out that Mr. Oldham, who was nominated by three co-operative trading companies to the fresh fruit section, does not in any way represent growers, and again urges the claim of Apple growers to nominate their own representatives.

Grading Regulations.

The report of the sub-committee of the State Advisory Board was dealt with. One of the resolutions submitted was:—That all fruits marketed should have marked on the case the variety of the particular fruit, the size packed, and the number contained in the case.

Mr. Aspinall (Metropolitan Fruitgrowers) strongly protested against this regulation being applied to fruit sold in open cases. It was unnecessary to label or mark cases in which the buyer could examine the fruit they were purchasing. This regulation had previously caused a breach between metropolitan and country growers.

Mr. Grant (Somerville) said this matter had been thrashed out thoroughly previously, and it was proved unworkable as far as the open case was concerned.

Mr. Foster urged that as the country growers were quite satisfied with the proposed regulations, the open case growers should meet and draw up regulations which would apply to their conditions.

After further discussion on the various clauses, it was decided that the Minister of Agriculture be asked to forward copies of the sub-committee's recommendations to all district associations.

Export Regulations.

On the motion of Messrs. Lang (Harcourt) and Moody (Toomuc Valley) it was resolved—

"That this meeting strongly protests against any alteration being made in the drafts of regulations for export fruit which was approved of and recommended at the National Fruit Council, and also by the Australasian Convention of Fruit Growers in May last. We especially mention the additions made and included in C2 and D2, and request that these be repealed."

The next meeting will be held on November 20th.

The Victorian Government has inserted the following advertisement in Australian newspapers:

SUPERINTENDENT OF HORTICULTURE.

APPLICATIONS, addressed to the Public Service Commissioner, Melbourne, will be received up till Saturday, the 3rd November, 1923, from persons possessing the necessary qualifications for the POSITION OF SUPERINTENDENT OF HORTICULTURE, Department of Agriculture.

Duties.—To have charge of the Horticultural Division of the Department of Agriculture, which embraces orchard supervision, instructional work under acts relating to horticulture, superintendence of experimental and demonstration work of the various branches of horticulture, including cool storage and preservation processes, the growing (cultivation, manuring, spraying, pruning, etc.), harvesting, packing, grading, and marketing of fruit; lectures, field demonstrations, and general propaganda.

Qualifications.—A thorough knowledge of horticulture generally, and of its major branches; experience in growing and marketing fruit, cool storage and shipping methods; evidence of capacity to direct the carrying out of experiments and research work in horticulture and fruit storage methods; evidence of ability in administration, and the supervision of the work of technical officers.

The salary offered is £750 a year.

The position will be exempt from the provisions of the Public Service Act.

Applications should be accompanied by documentary evidence as to experience and qualifications, and a statement of date and place of birth.

It will be noted that the above qualifications are much more reasonable than when the position was previously advertised.

On the selection of the right man, a lot of useful work can be done to benefit the Victorian horticultural industries.

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DISTRICT REPORTS.

Seasonable Spraying and Cultural Notes. Crop Prospects.

November Spraying Programme.

Harcourt.

From Harcourt (Vic.), Mr. J. H. Lang writes:—

The first application of Arsenate to Apples for Codlin is usually made late in October (calyx spray).

There has been much discussion among growers as to the necessity of this spray, some classing it as the most important, while others omit it without serious results.

Much, I believe, depends on the weather at this time. Though the Codlin moths may be on the wing, they will not deposit their eggs if the temperature be below 50 degrees F. at eight o'clock in the evening.

After the calyx spray I give three more before Christmas, mixing Lime-Sulphur with the Arsenate should it be necessary. The Black Spot is not a serious disease in this district.

Mixing Lime-Sulphur and Arsenate of Lead.—I have mixed Lime-Sulphur and Arsenate of Lead for several years; 2 gallons Lime-Sulphur, 5 lbs. Arsenate, 100 gallons water. Dilute both sprays before mixing, and apply at once. This gives the minimum of chemical reaction.

The Season's Prospects.

An old-established and esteemed fruitgrower at Harcourt sends the following notes:—

Prospects for season are good, Apple and Pear bloom being fairly heavy, though the younger orchards appear to be light. Cherries and Plums are also blooming heavily.

The wintry weather being experienced, however, may have a detrimental effect to the setting of the crop. It is a very long time since we have had such weather in October, in consequence of which Black Spot will be prevalent, and will take toll where the spray pump is not kept going.

We have had an abnormally wet winter, followed by the usual rough September weather, but October has turned in very wet, and growers are having an anxious time, because of it, just at the critical blooming period.

Last season's crop was a good one, and had export prices turned out at all satisfactorily, the season would have been a normal one, but English prices were so ruinous that they took all the profit from the season's turnover. Harcourt was, however, fortunate in having a good irrigation supply when other drier districts were in the throes of one of the driest summers ever experienced. The quality of the fruit was, in consequence, good. I estimate that something over 300,000 cases was the crop for last season.

Seasonable Work.

The work of the present season is well in hand. Ploughing is well advanced, but at a standstill at present, owing to the abnormal rainfall. The spray pump during the next week or two will have to take the place of the plough in order to keep down Black Spot.

Those who have not already done some spraying will now find it hard work to overtake the advance it has made, and may, in consequence, lose heavily.

Harcourt is, in a normal year, so free from the fungus diseases that growers are apt to forget in a season as at present their obligations in the way of combating these pests until too late. The old adage, "Prevention is better than cure" is one the fruit-grower must embrace.

In spraying for Black Spot, the directions given on the barrel of Lime-Sulphur are altogether wrong, and attention should be drawn to it as being misleading to the grower. We always spray at 1 in 20, instead of 1 in 30, as advised by the makers of Lime-Sulphur for the first spraying.

This makes all the difference sometimes between dirty and clean fruit, and we have never found it burn at this strength. The second spray, if necessary, should be 1 in 30.

Manuring has been general this season, super being mostly used.

Growers now find in Harcourt that by using super it encourages the growth of trefoil in the orchard, which gives them all the nitrogen required, and saves sowing peas. Then a little potash added gives the com-



Heavily laden branch of Trevatt Apricot tree at Mildura. (This is the top branch of the tree illustrated on page 395 of last month's "Fruit World.")

plete manure required to grow good fruit.

This fact is now past the experimental stage, and is practised by all the leading orchardist of our district. It saves purchasing Peas or nitrogen in the shape of sulphate of ammonia or nitrate of soda, and does away with the labour of an extra ploughing to sow the Peas.

Crop Prospects.**Narre Warren.**

Mr. Jas. W. Bailey, fruitgrower, Narre Warren, writes under date October 20th:

It is somewhat early yet to say what the crop will be this season. But on the whole the trees look far better than one anticipated after last season with heavy crops and very dry weather. Given good setting weather, we expect Apples to be medium, Pears heavy. (Peaches and Plums, only a few grown, should be fairly good).

Although last season promised heavy, the later varieties, owing to dry weather, did not come up to expectations.

Owing to the large number of properties changing hands, it is expected that this district will progress very rapidly in the next few years.

Melbein.—Our correspondent writes on October 22:—

Prospects here for this time of the year are looking extremely well. At this stage there is a good bud burst,

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and a fine showing on vines, but until the flowering and setting which occurs in November, one cannot forecast.

Last season the output of dried fruits from this district was a record, all sheds being taxed to their utmost capacity. The Birdwoodton and I.P.P.C. sheds are enlarging their buildings, and two new sheds for new firms are to be erected for next season.

So far the season has been free from diseases. We have had no reports of Black Spot, the weather so far being against it; but if favourable weather for its development occurs, it soon shows up.

Some growers have neglected to spray, and seem to be taking the risk. "Prevention is better than cure."

As far as Downy Mildew is concerned, our spraying knowledge tells us we can prevent by spraying, but as the vines are attacked, it is too late.

The mixture used for both diseases is the "Bordeaux," 7 lbs. bluestone to 50 gallons water, with enough lime or soda ash to neutralise.

Some growers are using the French mixture of the same ingredients, done up in neutralised form, using 10 lbs. to 50 gallons water. This saves all trouble of mixing and neutralising.

The first irrigation started 2nd of October, and is still proceeding.

Pakenham.

Mr. J. F. Moody, manager of the Toomuc Valley Orchards, writes:—

Most varieties show good blossom development. Young Jonathan Apples are reported to be light, buds bursting in leaf and shoots in place of blossom.

Pears show heavy blooms. Williams' Pears are late in blossoming.

Last season's crops were good on mature trees, but light on young trees.

The chief operations at the present time are ploughing and spraying.

A few growers are fertilising with super and potash, and turning under Peas.

The Coming Pear Crop.

**Anticipations—Medium to Heavy.
Doncaster.**

Mr. E. Lawford, Doncaster (V.), reports as follows under date October 22:—

On the whole the coming Pear crop is likely to be above the average.

As has been the case for quite a number of years, rain has affected the Winter Nelis bloom. This variety is especially susceptible to damage by wet weather. I think this is the seventh year in succession that it has been prevented from setting the crop it otherwise would have done.

Other varieties are not affected to the same extent. The prospects for the principal varieties are:—

Williams'—Too early to judge.

Josephine—Very heavy.

Winter Nelis—Light.

Beurre Bosc—Medium.

Broom Park—Heavy.

Marie Louise—Medium.

Howell—Medium.

Packham—Heavy.

Other varieties generally good.

Metropolitan fruitgrowers near Melbourne intend to protest vigorously against the new marketing and branding regulations proposed by a sub-committee of the State Advisory Board. "Adds to the expense, not desired by buyers or growers; wholly unnecessary interference with established trade," state the growers.

THE DANDELONG RANGES.

Berries: Cherries: Passion-fruit.

Cherry Growing.

An experienced grower in the Dandenong Ranges writes as follows:

Prospects should be encouraging for those who can grow Cherries pro-

fitably, as many acres are going out season after season, and there is no incentive to plant new areas. Have grubbed 1½ acres this season, and another acre will follow next year, while neighbouring growers are doing likewise.

One of the principal reasons is that the stock is unsatisfactory. The seedling is usually destroyed by borer before it comes into bearing. The Kentish is most favoured, but the suckers entail no end of labour season after season. Mazzard and Myrobalan stocks are not favourably commented on, and are therefore scarcely planted.

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F. W. J. MOORE,
Managing Director.

Telegrams: Tirralirra London

Bankers: Bank of New South Wales.

What is wanted is a stock that (like the Peach) is borer proof, and yet will produce satisfactory crops.

The varieties most profitable are—Werders, Bedfords, St. Margarets, and Florence. Early varieties bear well, but brown rot takes a heavy toll.

The insect and fungus pests include borer, brown rot, slug, and (last year) black aphid: most destructive of all is gumming, called, I think, Gummosis.

Wandin.

Strawberries are just starting to bloom, and are fully ten days later than usual, writes Mr. J. M. Mitchell, Wandin. Practically only one variety

is grown to any extent—the Melba—which bears fairly heavy crops, and what is more important, is eagerly sought by buyers. 4 cwt., No. 1 orchard manure, and 1 cwt. sulphate of potash to the acre gives good results. The worst pest with this fruit is the grub, which makes its appearance when the soil is neglected. Slack lime checks it, but the best method is to plough out and replant in virgin soil.

Legans and Blackberries are looking nice and green, but are not forward enough to estimate probable crop. They are both fairly free from pests

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MURDOCH BROS., Hobart

Wandin used to be the home of Raspberries, but owing to the cutting up of big estates and the great increase in population, everyone trying to get on, the result is that the necessary shade is wanting, with the result that very few now grow that berry.

Cherries are in full bloom, and promise well. Local pests are the Pear slug (which can easily be kept in check by the application of Arsenate of Lead 8 in 80, applied about mid November), and the brown rot, which has played havoc in a few gardens

lately. A remedy for this pest is urgently needed. It seems to me that pressure should be brought to bear on the departmental chemists to solve this problem.

Starlings also are again becoming a pest, and it wants another "drive" as organised by Central Fruitgrowers' Association a few years ago to minimise it.

Pears and Apples are not flowering too well.

Passion-fruit yielded very satisfactory results last season, and growers are increasing their acreage. A strong spray of Lime-Sulphur in August keeps disease in check, and to ensure fair-sized fruits, severe pruning of spurs in early summer is essential.

General Prospects for Berry Crops.
Wandin Yallock.

Mr. R. A. Routley, of Wandin Yallock (Secretary of the United Berry Growers' Association), sends the following report:—

—All berry crops are likely to be rather light, though weather conditions may produce any result. Strawberries are certain to be about a week later than usual; the other berries not so much so. If the present wet conditions are followed by a sudden burst of heat, as last year, the Strawberry crop will be light; if normal spring conditions come quickly, it will be heavier.

Cherries will probably be light, but in their case, and the other tree fruits, it is too early to forecast.

The most profitable Strawberry is the Melba, generally speaking. Sunbeam does well in some situations, e.g., on hill tops in red soil. Melbas are the main crop in the Wandin and Mt. Dandenong districts.

The principal pest of Strawberry is the Chafer Grub. Constant working of the ground is the best preventive measure, but Strawberry patches are seldom kept going more than three to four years.

All berries are liable to attacks of Aphids at flowering time. Blackberries (Lawton's) are sprayed with Lime-Sulphur by some growers to check the formation of a yellow powder, which in some years would render fruit unsaleable otherwise. Precise nature of the disease apparently not known.

Passion-fruit.—Last year's crop was of medium weight, some growers being highly satisfied. It is much too early to forecast forward prospects.

Manuring.—Passions are gross feeders, and will absorb any quantity of manure, but it is a moot point as to what is the best manure to apply. Fowl manure is good, but will work the plants out if applied every year. This manure, alternating with bone and super, will seem a good plan—about 6 cwt.s. per acre of the artificial. Growers' opinions vary wonderfully.

Pruning.—Here is another moot point. It is said by some growers that pruning back the sappy green ends of new growth in the autumn will prevent the plant suffering the full effects of frost in a severe winter, and lead to abundant growth in the ensuing spring.

Spraying.—A spraying of red oil while growth is active is adopted by some growers as a preventive measure against olive scale.

Dinner by Tarrant Motors.

The annual dinner tendered to their agents and dealers by Tarrant Motors

Gerald Da Costa



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and Autocars Pty. Ltd. was a highly successful function. Over 200 guests were seated at the dinner, which was held on September 27th at the Hotel Windsor. Major Stuart Ross, Chairman of Directors of both companies, presided. During the evening presentations were made to Mr. G. V. Cornwall, the general manager of Tarrant Motors, who was married during October. The presentations consisted of a grand piano from the agents and dealers, a cheque from the company, and other gifts. Musical items were rendered, and the entertainment was thoroughly enjoyed by all present.

Tasmania

Spraying for Codlin Moth and Black Spot.

Seasonable Cultural Hints.

Revised Grading Regulations Denounced.

(By Our Special Correspondent.)

THE EXTREMELY WET conditions that have been experienced during the blossoming period are showing their effect in the various districts.

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TASMANIAN AGENT
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Ltd., Cygnet

Black Spot is showing up rather prominently amongst susceptible varieties, especially in areas that were untreated with the fungicidal sprays.

The general setting of most fruits appears to be satisfactory, although it is too early to obtain definite data. Climatic conditions have been very conducive to fungus development, and in the many cases it has been difficult to obtain fine enough periods for the application of sprays.

Pear Shipments Overseas.—An effort is being made to induce some of the shipping lines to provide better conditions for the carriage of Pears to overseas markets. It is considered

that, if special small chambers were available on boats at regular intervals, no difficulty would be experienced in filling them, and that the trade could be substantially developed.

The majority of growers will not readily take the risks of shipping Pears in the ship's holds along with the Apple cargoes, and until some special provision is made the Pear exports will be restricted.

Commonwealth Apple and Pear Export Standards.—These have been received during the past month, with the notification that they are to come into force on November 1st.

There is strong resentment throughout Tasmania in regard to the alterations that have been made by the Department of Trade and Customs in these, as against the standards recommended by the Australian Fruit Council, and Australian Fruitgrowers' Conference in May.

Certain innovations have been made which entirely alter the intention of the "standard" and "plain" grades as agreed to by the Australian Fruit Council, and limit the percentages of blemishes to such a fine degree that it will seriously interfere with the Australian Apple export trade.

No grower wishes to export poor quality fruit, as he realises that such invariably results in a loss. At the same time provision should be made for the marketing of a grade that has a reasonable quantity of minor blemishes. This is provided for in the standards that were recommended by the Fruit Council. It is to be hoped the Department of Trade and Customs will adjust the grades in conformity with the wishes of the fruit industry.

Packing Competition.—A packing competition was held at the Hobart Show for State School scholars who have been in attendance during the season at the packing classes conducted by the Fruit Division of the Department of Agriculture. Out of 51 entries received:—1, T. Rowe; 2, D. Page, 3, L. Hilberbrand; 4, E. Leitch, and 5, A. Hickey, were the successful competitors in the Boys' section; whilst 1, J. Thiesen; 2, J. Wright; 3, J. Conway; 4, M. Chapman, and 5, G. Green gained the honours amongst girl entrants.

The exhibits of the various competitors received very favourable comment, the fruit being neatly packed and graded, making it a hard matter to separate the winners of the contest.

About 300 young people have been trained in the art of packing fruit by the Departmental instructors during the past season. This is a most useful and necessary work, and is much appreciated by the fruitgrower. It is to be hoped that the new Government, in its economy programme, will not limit its development.

Codlin Moth Spraying.—A discussion has been taking place in the hor-

ticultural columns of the press as to the necessity of applying an arsenate of lead spray in what is known as the "calyx" stage. The argument has been put forward, and has received a fair amount of support, that under Tasmanian conditions, very few grubs are hatched out at this period.

This may be the case in a few very late districts in late seasons, but in the majority of Tasmanian fruit-growing areas it is not advisable to take the risk thus presented of early fruit infestation. A large number of the "eye strikes" are very minute,

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A century's experience in handling
FRUIT OF ALL DESCRIPTIONS

All Consignments for U.K. will have
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Account Sales and Cheques des-
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Cables:—FIREBRICKS, LONDON
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Fruit Merchant

Fruit and Vegetables sold
for growers from all States.
Account Sales posted daily.

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Exporter of fruit to English
and Continental markets.

449-451 Flinders Lane, Fruit Exchange, Melb.

Reference—Satisfied Growers
in all States.

being difficult to trace, and the orchardist is thus rather prone to regard the point of egress as the point of ingress, basing his reasoning thereby.

Most experiments that have been conducted show the advantages of the "calyx" spray.

Incidentally a number of leaf and fruit eating insects, such as the "slooper" caterpillar and the brown beetle, are active at this stage, and may be controlled by the same spray.

Imperial Preference.—Fruitgrowers are generally appreciative that the

proposals which are being considered at the Empire Economic Conference for preferential concessions between the various units of the Empire, will, if agreed to and carried out in principle, go a long way toward the solution of the problem of marketing of fruit products.

There is no doubt that foreign producers, having large home markets for supply, are in an immeasurably better position for competition on markets than the sparsely settled empire dominions, in that the surplus over their home consumption can be disposed of at cost if necessary to maintain home prices.

The problems of empire settlement are interwoven with improvement of marketing conditions to the fruit grower for his products. The fruit industry has been used very largely as a means of absorbing large numbers of Great Britain's surplus population, and is inclusive of a big percentage of ex-military men, who gave service during the war.

The success of these settlements and of future empire development depends largely on the safeguarding of the producer on what can only be regarded as his recognised markets. Fruitgrowers are watching with interest the deliberations of the Empire Conference in these respects.

British Empire Exhibition.—An attractive feature of the Australian pavilion will be the fruit diorama. A large space is reserved for this, which will depict with scenic effects the various phases of the production and packing of fruit.

The State Advisory Board Sub-Committee, which is dealing with this matter, has arranged for the supply of an efficient grading machine. This will be constructed of Tasmanian timber and materials. Demonstrations will also take place in the general packing and grading of fruit as is practised for overseas export.

Commonwealth Bounty.—The news that the Commonwealth Government have decided to allocate the sum of £125,000 to providing a bounty on canned Apricots, Peaches, Pears, and Pineapples in lieu of the "pool," which was requested by the National Fruit Council has been received by somewhat mixed feelings by the Tasmanian fruitgrowers.

The majority are firm in their belief that if a "pool" had been granted this season on the same lines as previously, it would be the most efficient means of promoting the welfare of the industry.

In the meantime the Apple growers are asking, "Why they are left out of the scheme?" Owing to high freights, and bad carriage, the markets have not yielded payable returns since the suspension of hostilities.

The fresh fruit exporter has just as good a claim for assistance as the grower of canning fruits, and is determined to obtain a recognition of same in the allocation of any proposed bounty.

TASMANIAN ORCHARD NOTES.

THE PRESENT SEASON is conducive to development of fungus disease. Carefully watch Apples and Pears for Black Spot infection. Bordeaux sprays should only

Codlin Moth.—Apply "calyx" spray when petals have fallen. Insist on obtaining an arsenate of lead that carries a high suspensory test. This is necessary if an efficient coating of spray is to cover the young fruit. Lime-Sulphur may be used in combination with the calyx spray to check Black Spot development.

Cultivation.—Keep the harrows going constantly, especially after a good rain. It is important that no neglect of cultural operations take place during the early growing months, as such neglect, besides having a bad effect on the setting of fruit crops, will retard their development.

Re-worked Trees.—Fruit trees that have been re-worked during the season should have attention. All shoots other than those coming from the scion should be removed. It often happens that a number of scions do not make growth until late in the season. If they are showing plump and have not shrivelled, there is a possibility of this occurring. Where a scion has shrivelled, it is certain that a "miss" has occurred. In such cases a shoot should be maintained at the head of the limb and "budded" during February or March.

CAN MAKING PLANT.

The E. W. Bliss Company, of Brooklyn, N.Y., makers of can making machinery, have recently moved their sales and executive offices to their South Brooklyn plant, located at the foot of 53rd street, on the east shore of Upper New York Bay. This plant comprises a group of seventeen buildings, covering a ground area of eighteen acres, and has a total floor area of twenty-one acres. It has a water frontage of 390 feet, at which there are two piers, one being 200 feet long and 80 feet wide, and the other 575 feet long and 60 feet wide. There is ample water to accommodate the average size steamship.

The aeroplane view published on page 421 gives a very good idea of the size of the plant, which is 5 feet less than one half mile long. Beginning at the Second Ave. end of the plant, which is shown in the foreground of the picture, there is a three-story machine shop, 320 feet by 200 feet, constructed in the form of a hollow rectangle, the court of which is 200 feet by 80 feet, and is used as an erecting shop, while the balance of the building is used as a machine shop. The erecting shop is served by a number of electric travelling cranes and auxiliary hoists. On either side of the building are five-ton steel cranes to serve the planers and lathes.

Readers are enthusiastic concerning the value of the Annual. It is bound in stiff covers for a ready reference.

T. STOTT & SONS Fruit Merchants

Established 1882

A Trial Consignment solicited from Growers in all States.

Prompt Settlement.

11 WESTERN MARKET, Melbourne

TASMANIA

We are the Leading Australian Firm of FRESH FRUIT EXPORTERS, JAM MANUFACTURERS (IXL Brand), FRUIT CANNERS, HOP FACTORS (owning the largest cool stores for this purpose in the Commonwealth).

Supplies of Corrugated Straw-board, Genuine Sulphite Paper, Nails and best Packing Materials available at all times.

Sole Distributing Agents for the Southern Tasmanian Associated Manufacturers of Evaporated (dried) Apples.

Agents for—
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Fruit Shipments LONDON Liverpool and the Continent

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AND HOBART, TASMANIA
Solicit Consignments

The High Standing and Long Experience of this Firm is a Guarantee that the Best Interests of Consignors will be conserved.

be applied during "pink" stage. After the fruit has set, weak Lime-Sulphur solution will check development, and is less injurious to the skin of the fruits.

Interstate Fruit Trade.

Pears, and Apples in Brisbane.

Interesting Comparisons.

WE have pleasure in submitting the third of the series of articles, illustrated by graphs, showing market fluctuations in Brisbane, Queensland. The information

afford a comparison between the seasons of 1922 and 1923. This comparison is not uninteresting, and the growers of this variety will learn that a remarkable similarity is discernable in the market values between the two seasons mentioned.

In 1922 Williams' opened at the high figure of 14/-, but the second consignment found the market eased to 11/-. Prices were fairly steady at this rate until the middle of February, when a sharp upward movement was made, and 14/- was reached on the 18th.

For a week this was maintained, but after that a collapse came. The reason for the sudden drop was that the fruit arriving at the end of February and during March was too ripe.

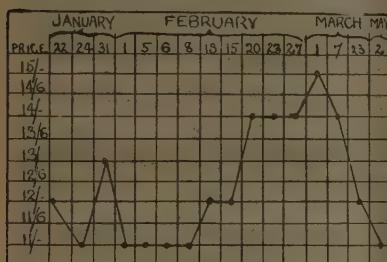
In 1923 the market opened up at 12/-. The main value was 11/-, till the middle of February, when the upward move came in almost the same manner as in the previous season. This firming of values culminated on March 1st at the fine price of 15/-, after which we experienced the same trouble with overripe fruit.

Our advice to growers as a result of our experience is that Williams' should be marketed during January and February.

In 1923 March arrivals were fortunate. The second half of February is the best time to market. But early consignments often score

well. When Williams' first arrive they are green, and the local retailers are looking for ripe fruit.

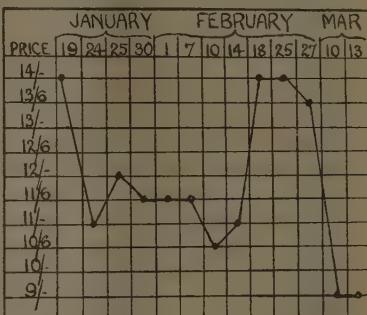
In February they begin to arrive in a "sprung" condition, and then the country buyers are searching for green samples. A careful study of William Pears in the various markets must be of some value, because



Graph showing market fluctuations for Harcourt (Vic.) W.B.C. Pears in Brisbane, January to May, 1923.

was compiled by Mr. H. V. Geeves, Growers' Agent, Brisbane. Our contributor writes:

In submitting graphs for Williams' Bon Chretien Pears, we are able to



Graph showing market fluctuations for Harcourt (Vic.) W.B.C. Pears in Brisbane, January to March, 1923.

of the delicacy of the fruit, and because of the rapidity with which it becomes ripe.

Tasmanian Jonathans in 1923 show a fairly steady climb from March

BE READY to BOTTLE some FRUIT !

HOUSEWIVES OF AUSTRALIA—

Do you know what it means to you to have your pantry shelves stocked with delicious

BOTTLED FRUITS?

If you do not, then you should secure at once a FOWLER PATENT VACUUM FRUIT BOTTLING OUTFIT.

Send at once to any leading Store in the Commonwealth for new Illustrated Price List.



Manufactured in 8 Sizes for Home and Orchard Use by:—

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STOCKED IN BRISBANE BY CIVIL SERVICE STORES.

Fowlers' Vacuum Fruit and Vegetable Bottling Outfits make Home Bottling a Pleasurable Pastime !

FRUIT and VEGETABLES bottled by the FOWLER Method retain that "FRESH FROM THE GARDEN" flavour and appearance.

There is no screwing down hot bottles, they automatically seal during the sterilising process.

Sugar is not essential. You can bottle in water if desired, and sweeten it to taste when you use it.

Home-made Preserves and Bottled Fruits are far superior to factory packed. You can put Jam in the Vacuum Bottles, too, and when sealed by the Fowler Method it can never mould. Full instructions are supplied with each Outfit.

to August. The quality this year was, generally speaking, quite good, and many beautiful lines were marketed. It is worthy of note that during the first half of the year there are also on Brisbane market Tyabb (Vic-

The prices shown, namely, 16/- on October 9th, was for a fine ex cool store in Tasmania. This fruit arrived in excellent condition, and looked as fresh as though it had just been picked

for 16/-. We could have sold a thousand had they been available, and until we have reached that perfection in scientific knowledge and organisation, that many growers have reached in their knowledge of fruit, we will not be able to say that our industry is carried on in an efficient manner.



Graph showing market fluctuations in Brisbane for Tasmanian Jonathans, March to October, 1923.

toria) Jonathans, and these arrive in weekly consignments of about 1,000 cases. The Jonathan is undoubtedly the favourite Apple, its flavour and colour both proving great selling factors.

These facts go to prove how necessary it is for all of us engaged in the industry to try to take advantage of every scientific development that we can. We received about 100 Jonathans on October 9th, and sold them

Valuable Clovers. — Attention is directed to the Clovers offered to readers in the advertisement of Messrs. F. H. Brunning Pty. Ltd., of Elizabeth-street, Melbourne, on page xxii. "Hubam" is reported as being of especial merit.

Dennys, Lascelles Ltd.

509 COLLINS STREET,
MELBOURNE

Head Office and Wool Stores at
Geelong.

Exporters of Fruit

to the Oversea and
Interstate Markets.

Why "The Lightning" FRUIT GRADER Stands Alone

BECAUSE



It is absolutely the
Strongest,
Simplest,
Most Efficient
machine on the market.

We are the largest makers of Fruit Graders in Australasia. It will PAY you to trade with a firm with a reputation for Quality and Service.

Order your Machine now to ensure early delivery.

The Machine which does ALL we claim for it.

MOST VALUE FOR THE MONEY

Price from £18/0/0

GRADES APPLES, PEARS, APRICOTS, PEACHES, ORANGES, &c.

Made in Models to suit all buyers.
Machines fitted with Rubber Rollers.

We will be pleased to forward Catalog on Application.

LIGHTNING FRUIT GRADER CO., 109 Cromwell St., Collingwood,
Victoria.

The Fruit Industry in New Zealand

The Orchard Tax.

(Continued from page 357 October issue)

AFIRM FOUNDATION WAS LAID by the passing of an Act in 1916 providing for a levy of an

annual tax of 1/- per acre

on all commercial orchards, the sum realised to be applied to organisation purposes. This is collected by the Horticultural Department, and handed over to the N.Z. Fruitgrowers' Federation, a body which affiliates all the local fruit-growers' associations.

The directors are elected by provincial conferences and they report to the annual conferences which consists of delegates from all the provinces. The headquarters are in Wellington.

The first few years of the Federation were not marked with any very tangible results, except that every district soon had its own local association, and many growers were of the opinion that it was redundant.

The resumption of exporting proved its usefulness, and although many mistakes were made in the past, it is difficult to see how the export business could be successfully worked without such a central organisation. The Federation has done good work under the present Chairman, Mr. Attwood, who, by request of the directors, temporarily accepted a salary and acts as managing director. He recently visited England looking into the question of new markets and watching the arrival of the 1923 shipments to report on their condition.

The Federation has also been active in the bulk purchasing of orchard supplies

which it distributes through the local associations, practically at cost. The arrangement of shipping space and all negotiations with the Government are conducted through the Federation and it has a semi-official standing, inasmuch as the director of the Horticultural Division is a ex-officio member of the board.

The average grower's principal trouble is economic—the almost eternal question of how to sell fruit at something over and above the cost of production.

The closing of the South American market, first of all by the war and afterwards by the diversion of the Home liners through the Panama Canal upset pre-war estimates and calculations and has caused no little hardship to those who planted export apples and looked to receiving the same substantial returns as those received by the Nelson growers in 1912-14.

Export to United Kingdom.

The London market has been well exploited since 1920, and the Dominion has firmly established itself there by good grading and rigorous inspection, but the high freight and handling charges generally absorb far too much of the gross returns.

In 1922 the London shipments also suffered from brown heart, but reports on the 1923 shipments indicate that this trouble does not seem to be of serious moment this year. The figures for 1921 show that 80,000 cases were shipped; 1922 110,000, and in 1923 147,307 cases were shipped, the latter figure being made up of consignments from the various provinces as follows:—Nelson, 94,800; Otago, 15,015; Hawkes Bay, 9,937; Wairarapa, 7,870; Marlborough, 4,643; Canterbury, 490; Auckland, 792.

The Government has given its support to the trade by

guaranteeing the growers 1d. per lb.

nett on all fruit shipped during the 1921 and 1922 export seasons.

In 1923 the Federation managed to arrange for two boats to go via Monte Video and Rio respectively. The former carried 3,000 cases, which averaged 14/6 per case c.i.f., and the latter, which left on June 1st, was sent on consignment to a representative of the Federation. This may prove to be the reopening of this profitable market, and as cargoes are not plentiful, shipping companies may possibly be induced to make a few trips via the Horn for this trade in the future.

The Local Market.

Prices for the local trade kept up fairly well until 1920, when the influence of the newer areas



A RELIABLE SPRAYER

Here is a Plant that Practical Orchardists Value:

PUMP—Double-Acting, High Pressure, Single or Duplex as required, working up to 300 lbs. per sq. inch.

ENGINE— $\frac{1}{2}$ H.P. Fairbanks-Morse, type "Z," operating on kerosene.

VAT—Approximately 80-gall. capacity; strongly made, easily cleaned.

HOSE—Two 30-ft. lengths 6-ply H.P. hose fitted with "Edgell" patent cut-off and Bordeaux nozzles.

TRANSPORT—Low-set, well-balanced and firmly put together.

Let us quote you for prompt delivery.

Dangar, Gedye & Co. Ltd., Young St., SYDNEY

was felt. On account of so many apples and pears, intended for export if conditions had been favourable, coming into the local market, prices have been low and this over-supply, coupled with a 300 per cent. increase in costal freights since 1914 has been very detrimental to the growers pocket. Many and various schemes have been mooted to decrease selling costs and to increase local consumption, but up to the present nothing very definite has been evolved.

The demand and supply of stone and berry fruits continue to be normal, no great increase in the plantation of these lines having taken place. There is a voluntary grading system under Government specifications in use, and there has been much talk of making this system compulsory. Compulsion was strongly advocated in the first instance by the Horticultural Department, but they now revert to the voluntary idea, as it was found that compulsion would entail an army of inspectors or graders. An advance has been made in the compulsory branding of every case with the registered number of the supplying grower, and it is applied both to the home and to the export trade. The result has been that those addicted to "topping" and the packing of unmarketable fruit have been speedily brought to book.

All the local fruit is sold by auction in the cities, with the exception of private treaty sales in such standard lines as Delicious and Sturmer apples, Winter Nelis pears, etc.

Canning and Jam Industry.

Very little canning is done in the Dominion, but practically all the jam consumed is produced locally. There are 10 factories employing 310 hands, and producing £316,675 (1922) of which 75 per cent. would be jam. The canned fruits produced are mostly pie fruits in gallon tins, as nearly the whole of the dessert fruits consumed are imported in the following quantities (1921):

U.S.A.	£120,771
Australia	£135,951

These figures show an available market for very much more Australian canned fruits which should entirely displace the American. This

market will be open for many years to come, as no district in N.Z. has sufficient of the proper canning varieties of fruits to justify the establishment of a modern canning factory, though there are several districts quite capable of growing them. There is practically no export of canned fruits or jam from N.Z.

There are two apple evaporators operating, and these supply the existing local demand. No other dried fruits are produced, and the following amounts are imported:

U.S.A.	£82,127
Australia	£380,927

Australia should also capture the whole of this market.

The citrus imports were as follows (1921):—

U.S.A.	£48,814
Australia	£36,816

North Auckland produces good lemons and Seville and Mediterranean varieties of oranges, but there will always be a demand for Navels and other lines. A high standard of packing will be demanded in view of the large importations of Californian "Sunkist" fruits.

The Cawthron Scientific Research Institute.

A review of the N.Z. fruit industry would not be complete without mention of the recent

establishment of the Cawthron Institute in Nelson. The Institute was founded and endowed under the will of the late Thos. Cawthron, who left the sum amounting to over £200,000 for the purpose of advancing scientific research.

A highly qualified staff was engaged, including Professor Easterfield and Dr. Tillyard, and a start was made in temporary premises in 1919. The work of the Institute has already received recognition in scientific circles throughout the world, and the growers have received help in the battle against such pests as fireblight, woolly aphid, black spot, and other troubles.

There is no doubt that the Institute will be one of the most valuable assets to the industry and its benefits will be felt throughout Australasia in general and N.Z. in particular.

(Reprinted from the "Fruit World Annual.")

STONE FRUITS CITRUS TREES and QUALITY ROSES

BEFORE PURCHASING

for hardiness, healthiness, and vigor. They will jump from the start and bring profit to the grower. Our stocks are excellent and prices right. Special attention is given to packing.

A Good Start means Everything!

send for Lasscock's Catalogue and prices. These South Australian grown trees are unsurpassed for hardiness, healthiness, and vigor. They will jump from the start and bring profit to the grower. Our stocks are excellent and prices right. Special attention is given to packing.

LASSCOCK'S NURSERIES

Henley Beach Road,
LOCKLEYS, STH. AUSTRALIA

THE FRUITGROWER to-day recognises that his industry is Australian-wide in character.

Growers in Tasmania are intensely interested in what is happening in the orchards of Queensland and Western Australia, though separated by thousands of miles.

New Zealand and South Africa are also big factors in production, and compete in the same world markets at the same time.

What is happening in the great world of fruit production and marketing, not only in Australia but in other parts of the world ?

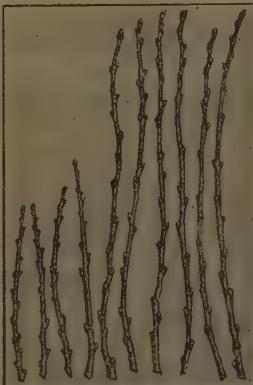
For answer read the "Fruit World Annual," the most comprehensive review of the Fruit industry ever published. Statistics are given showing the full list of fruits imported into Great Britain from all parts of the world. Cultural articles on subjects of first importance are published.

Complete Spraying guide ; also

A Book-keeping System which will last the grower for a whole year.

All this (136 pages, bound in stiff covers) for 2/6 (posted, 3/-)

Don't Delay! Order your copy now from your newsagent or from The Fruit World Pty. Ltd., 9 Queen Street, Melbourne, Vic.



Without Ammonia. With Ammonia
Balanced Plant Food in Peach Orchard
Produces Bearing Wood.



Potash and Phosphoric Acid



Ammonia, Phosphoric Acid and Potash
Balanced Plant Food Increases Growth.

THE MEANS of supplying to your trees, in the past, a balance ration of plant food has been a problem to which you have devoted considerable attention. While the question of phosphoric acid and potash has not occasioned you much concern, it has been extremely difficult to arrive at a decision as to the source of supply of

NITROGEN

the most important and expensive element in the dietary of plants, and the one unfortunately, of which the soil appears to have the least power of retention.

Nitrogen is a stem and leaf producer. It develops new wood, and adds a healthy green colour to the foliage, and is specially necessary for trees in bearing, ensuring reasonable growth of wood, abundant formation of fruit spurs, plenteous supply of blossoms, and complete development of the fruit.

SULPHATE OF AMMONIA

is at present the cheapest and most highly concentrated nitrogenous fertiliser on the Australian market, and wherever it has been applied to orchard trees results have fully justified its continued use as a means to

Increased Yields of Better Quality Fruit

Sulphate of Ammonia contains approximately 24½ per cent. ammonia, equivalent to 20 per cent. nitrogen in a form readily assimilated by plants. It may be used alone as a top-dressing, or in mixtures for a general application, containing potash and phosphoric acid.

Of special interest to Orchardists is handbook entitled "Productive Fertilisers," which deals with sulphate of ammonia in relation to all forms of agriculture, and with slight modifications to suit local soil and climatic conditions, the tables quoted for various crops might be followed throughout Australia. Copies of handbook "Productive Fertilisers" mailed free on request to:—

THE AUSTRALIAN SULPHATE OF AMMONIA PROPAGANDA COMMITTEE,

360 Collins Street.

MELBOURNE, Vic.

N.S.W. and Queensland: The Australian Gas-Light Co., Haymarket, Sydney; The Broken Hill Prop. Co. Ltd., 28 O'Connell St., Sydney; The North Shore Gas Co. Ltd., 193 Alfred St., North Sydney.

Victoria and Tasmania: The Metropolitan Gas Co., 196 Flinders St., Melbourne; The Broken Hill Prop. Co. Ltd., 320 Collins St., Melbourne.

South Australia and Western Australia: South Australian Gas Co., Waymouth St., Adelaide.

Queensland.

Drastic Legislation is being Introduced.
Cultural News and Notes.
(By Our Correspondent.)

AN unusually long dry spell, accentuated in effect by continuous parching winds, has militated against the prospect of most fruit crops for the coming season.

Citrus, except in favoured localities, are more or less adversely affected.

Grape vines withstand the absence of usual moisture better than most crops, and have made good growth. The conditions being most unfavourable for Downy Mildew, little or no trouble has arisen from that source.

Amongst tropical fruits the Mango is most partial to dry atmosphere for setting its fruit, and an abundant flowering will likely be followed by a heavy crop. Unfortunately the percentage of trees which are really worth including is very low.

The spring growth of Bananas is materially affected, and rain is urgently needed to prevent a pronounced effect on the following bunches.

In cultural matters but little can be attempted, but it is noted amongst young trees under good cultivation that growth is being well maintained.

The lesson against dry times is obvious. If irrigation is not applicable allow more space in planting—any suggestion of crowding is of no benefit to the trees nor their owner.

The Compulsory Co-operation Bill.

A matter of much concern to the fruitgrower is at present the proposals embodied in a Bill now being presented to Parliament, and emanating from the Agricultural Council—or a part of it.

There are so many councils conducted in conjunction with the original that an outsider becomes hopelessly entangled in an attempt to locate or recognise them.

It has been suggested that sundry fees and expenses incidental to office are responsible for rather extravagant extension.

A perusal of the Bill, which is far too bulky for average producer to wade through, and sufficiently complicated as to be beyond his comprehension, discloses a most drastic and autocratic measure.

Compiled by a council, presumably representing growers, provision is made for

commandeering all fruit grown, the council or sub-council responsible undertaking transport, marketing, etc., heavy penalties being provided for anything that may be considered a breach on the part of the grower, to be assessed by such council, without any recourse to the

usual process of law and recovered from such grower, provided he has any realisable assets.

Incidentally the fees, etc., to be paid members of the council are to be decided by that august body.

As the Agricultural Council's expenses last year amounted to about £25,000, for no result whatever, the attempted disposal of the Pine-Apple excess crop lacked both initiative and business method—the hard things that are said about it in the country societies can well be understood.

For the current year a levy of 4d. per week is proposed to apply to all fruitgrowers to establish a fund for marketing, but in the entire absence of business men from the personnel of the council, the growers can be pardoned for wondering how many more levies will be included to make this deficiency.

Fortunately, there is one saving clause in this piece of legislation inserted, it is understood, by the Minister in charge, whereby 50 growers can demand a poll favouring its application or otherwise.

Judging by published criticisms from various sources, it will have much less welcome than attended the prohibition prospect.

It is unfortunate that a desirable object, such as originally intended, should be frustrated by circumlocution ably backed by faddists whose main appreciation is of their own egotism.

Are you spraying exactly WHEN you should?

The old method of hand pump spraying takes up so much time that it is very often impossible for the Orchardist to direct his campaign against Orchard Pests on just those few vital days that make all the difference between successful results and a futile expenditure of valuable mixture.

The Cooper

PERFECT BALANCE POWER SPRAYER

enables spraying to be done in one-tenth the time taken when using a hand spraying outfit. The low-down vat is easily and quickly filled; the two long lengths of hose permit two rows of trees to be sprayed on either side of the outfit; the high, broad-rimmed wheels enable the plant to be used in soft, wet ground without the least danger of bogging—hence no waiting for ground to dry after rain. Engine and pump are strong and sturdy, simple to operate, require little attention, and running cost is only about 3/- per day.



COOPER ENGINEERING CO. LTD.

350 Spencer Street, Melbourne
129 Sussex Street . . . Sydney

CLARK & FAUSET LTD., Brisbane.
AUSTRALASIAN IMPLEMENTS & H. F. CO., Adelaide
G. V. CHAPMAN, Launceston and Hobart.

Wild Flower Shows.

WILD Flower Shows have been held again in various places in the Commonwealth, and the attendances show that the quest for knowledge of the Australian flora and its beauties is still very keen. Melbourne, Adelaide, Sydney and Geelong (Vic.) as well as other smaller centres, have had their displays of the fine native flowers of our Commonwealth.

* * *

There is a growing demand on the part of the public for Australian native plants, which can be fostered by specialised attention on the part of nurserymen and seedsmen.

Fodder Grasses.

"Kikuyu grass is the king of grasses as far as this locality is concerned. When all other pasture was killed by the recent drought the Kikuyu remained green and sturdy. The stock are extremely fond of it, and appear to prefer the Kikuyu to wheat, barley, or Sudan grass. I gave roots to several neighbours. All are enthusiastic about its feed value and drought-resisting properties."—Report from a farmer in the Liverpool (N.S.W.) district.

Did you ever notice that the man who has a little home garden of his own is usually a mighty good citizen?

The use of lucerne has been extended gradually until it is being grown in practically every state in U.S.A. The production of lucerne seed, however, is confined largely to regions west of the Mississippi.

A New Paeony.—A new tree Paeony has been raised by Mr. A. F. Thiele, a horticulturist, at Doncaster, Vic. It is a chance seedling. The blooms are a lovely rose pink of the shade of a Belle Siebrecht Rose. The blooms are 9 inches across. Specimens of the blooms were recently shown in the windows of F. H. Bruning Pty. Ltd., Melbourne.

.. THE ..
Farmers and Settlers' Co-operative Insurance Company of Australia Ltd.

Capital, £100,000.	Subscribed Capital, £70,000.	Paid Up, £35,000.
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THIS IS
THE ORCHARDISTS' CO.

for insuring his buildings, fruit in store, Workers' Compensation, and other risks. An orchardist who becomes a shareholder and places his insurance with this Company participates in the profits which his own business creates. Thousands of farmers and orchardists are already shareholders. Write for particulars.

Victorian Branch:

Directors—Mr. SYDNEY SAMPSON, M.H.R., Mr. DUNCAN MCLENNAN, Mr. P. H. H. IBBOTT.

Manager—H. L. CARROLL

Address: 360 Collins Street, Melbourne

YOU are invited to become a shareholder.

AGENT—LAWFORD'S FRUIT EXCHANGE PTY. LTD., 60 Queen Street, Melbourne, and Williamson's Road, Doncaster.

AGENTS WANTED.

ESTABLISHED 1866.

TELEPHONE 2979

Watters' Seeds

For the CHOICEST VEGETABLES and most BEAUTIFUL FLOWERS sow our Seeds

We are Headquarters for—

Hunter River Lucerne

Cleaned by our Special Machinery, and free from all weeds. SPECIAL QUOTATIONS for Cwt. or Ton lots on application.

We have large stocks of the following in best re-cleaned Seed: Broadleaf Dwarf Essex Rape, Grasses, Clovers, and all varieties of Green Fodder and Root Crop Seeds

Write at once for our Special Quotations.

Spraying Oils, Fungicides, Raffia

Illustrated Catalogue and Calendar, post free.

WATTERS & SONS
251 & 253 Swanston St., Melbourne

WOOD-WOOL

FIRST QUALITY AND AUSTRALIAN
Less than half the cost of Imported.

A Leading Firm of London Importers report on a large shipment of pears packed in trays with our WOOD-WOOL. This consignment certainly travelled well and arrived in very good condition, the wood-wool used in packing appearing quite suitable.

Write for quotations

LAWFORD'S FRUIT EXCHANGE PTY. LTD., DONCASTER, VIC.

(Sole distributors)

Orchard, Vineyard and Farm Implements

D. HARVEY

BOX HILL

MELBOURNE



NO. 10 S.F. GENERAL PURPOSE PLOW.
High Steel, Goose-neck Beam, Fixed Handles.



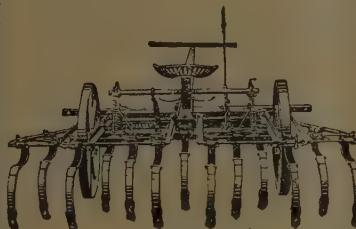
"HARVEY" GOOSE-NECK S.F. PLOW.
With shifting or fixed handles. Made in
7, 8, 9 and 10 sizes.



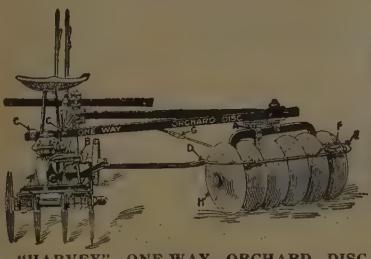
"HARVEY" ORCHARD PLOW.



"HARVEY" 2-FURROW SHIFTING
ORCHARD PLOW.



SPRING TOOTH RIDING CULTIVATOR.



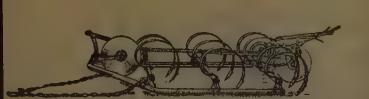
"HARVEY" ONE-WAY ORCHARD DISC
CULTIVATOR.



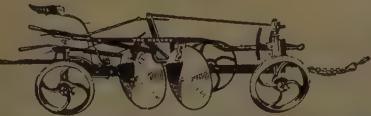
4-FURROW POWER LIFT TRACTOR PLOW.



"HARVEY" GRAPE HOE.



"HARVEY" SPRING TOOTH CITRUS &
ORCHARD CULTIVATOR.



LIGHT 2-FURROW ORCHARD DISC PLOW.

Office and Works :

D. HARVEY, Box Hill, Melbourne, Vic.

Show Rooms : F. R. Mellor, 440 Elizabeth St., Melbourne

Write for New Illustrated Catalogue

Bud Selection.

To the Editor, "Fruit World."

Replying to Mr. Wicks' query in your recent issue, there is nothing in the article which I quoted to show that elimination tests, as outlined by him, had been carried out in the orchard at Wisley, the paragraphs referring to the selection of parent trees reading as follow:—

"Excellent material was at hand for carrying out this experiment, since for many years previous to 1918, and subsequently individual trees of varieties contained in the large collection of Apples growing near the Meteorological Station in the gardens at Wisley, had shown very marked differences in their cropping habits.

"An examination of the records of these trees showed that it was of common occurrence to find one tree of a variety cropping heavily year after year, whilst another tree of the same variety, growing within a few feet and of exactly the same age, would be regularly carrying very poor crops. Furthermore, this difference could be traced back almost to the time the trees first commenced to bear fruit, the trees now about twenty years old."

At page 207 in the same journal in the chapter devoted to notes and abstracts, the following appears:—

"Bud Selection, with special reference to Apples and Strawberries, by V. R. Gardener (Univ. of Missouri Agri. Exp. Stn., Bull. 39, August, 1920), gives interesting results from a series of bud selection experiments conducted at above-mentioned station, and at the Oregon Experimental Station.

"It was found that Apple trees propagated from the high yielding parent averaged about the same in quantity and grade of fruit produced as those propagated from the low-yielding parent, there being great variation between the individual trees in each lot. Then successive generations of runner selection from high-yielding and low-yielding Strawberry plants failed to produce strains whose yield was higher or lower than the average of the variety. A considerable number of bud variations selected for propagation proved to be simple fluctuations, incapable of impressing their high-producing or low-producing qualities upon their daughter plants.

"A review of some of the most important contributions to literature devoted to this question of bud selection prefaces the report, and serves to emphasise the great diversity of opinions expressed."

Yours faithfully,

GEO. W. WICKENS,
Officer in Charge, Fruit Industry,
Western Australia.

Poultry and Beekeeping



Poultry Notes.

(By Ian P. Hamilton.)

An English Flock System.

A COMMON PRACTICE with English poultry breeders, which is considered satisfactory and economical, is to run units of about 100 or 120 birds in houses placed from 50 to 60 yards apart in a field. If this is done, it dispenses with the outlay of wire netting for dividing the birds into separate flocks, and up to 130 birds can be kept on an acre without any danger. A considerable saving in labour can also be effected by this system, and if a small corn shed is attached to these houses, it will cut down the carting expenses. Such a method is, of course, only intended for commercial egg production.

BEWARE OF VERMIN.

Look out for vermin. They thrive in dirt and heat, and will soon take away all the profits from your poultry.

Thoroughly disinfect sheds, perches, and nests. Examine the birds for lice, looking especially on the neck and under the wings. Cracks in perches or any other crevices should also be examined for red mites.

Get rid of these pests now before they multiply. The eggs resemble

white dust, and may be destroyed with boiling water. A mixture of kerosene, boiling water and soap makes a good spraying solution.

It is a good plan to give the sheds a coat of lime solution about this time every year.

SEASONABLE NOTES.

During the hot months eggs should be collected and water supplied twice daily.

* * * * See that fowls have good shady runs during the summer months.

Keep up the supply of green stuff, and cut out any heating foods, such as maize, which should only be fed sparingly in the winter months, in conjunction with other grain.

When keeping fowls on the intensive system, it is usual to allow about 4 feet of floor space for each bird. A shed 20 feet x 8 feet would hold a flock of 40 hens, but if such a shed be used as a roosting house only, it would shelter many more without crowding.

In 1922 over 150,000 tons of eggs, valued at £24,000,000, were imported into Great Britain. Many of them are said to have been placed on the English market as new-laid. Legislation is now, however, being enacted to have all imported eggs branded.

* * * * A Black Orpington hen in a New Zealand laying competition is said to

have produced 342 eggs in twelve months, and a White Leghorn 335. Both constituted records in New Zealand and the Commonwealth.

Bee-Keeping.

(By Ian P. Hamilton.)

Transferring Bees and Combs.

ANYONE WHO UNDERSTANDS bees well and has sufficient experience of disease to enable him to detect the very first trace of it," says F. R. Beuhne, of the Department of Agriculture, "can transfer box hive bees to frames at any time during the active season by cutting out any of the combs of brood in the box hive which are straight enough and fitting them into frames.

"The pieces of comb are held in position either by means of string tied over the frame and comb, or thin splints of wood tacked to the frame. These temporary supports may be removed as soon as the bees have fastened the combs to the frame.

"It is seldom that more than two or three frames can be filled with brood from a box hive; the rest of the frames are supplied with starters or full sheets of foundation. As the bees become established on newly-built combs, the frames of transferred combs are gradually worked to the outside of the cluster of bees, or put into the upper story over a queen-excluding honey board, and when all the brood is hatched out of them, they are best withdrawn from the hive and melted for wax.

"While this method saves most of the brood and transfers everything in one operation, it is a very messy one. There is always a risk of transferring disease to the new hive along with the brood or comb, and the transference of brood and comb should, therefore, not be undertaken by anyone not possessed of the requisite knowledge and skill."

The Difference Between Profit and Loss Lies in Clean Orchards

A New Era in Orchard Sprays

GUMLYPTA ORCHARD SPRAY

The combined insecticide and fumigant that can be used on your trees at any time of the year, and costing less than 3d. per gallon for effective strength.

Destroys Woolly and all Aphids, Red Spider and all Scale Insects, White Louse, White and Pink Wax.

We recommend 1 part Gumlypta to forty parts water for general purposes.

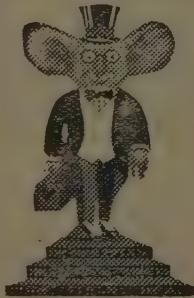
GUMLYPTA ORCHARD SPRAY is Eucalyptus Oil and other insect destroying oils scientifically blended with Carbon Bi-sulphide, etc., so as to mix with water at any strength.

Prevents Fungus growth and Leaf Curl, etc. Thousands of gallons sold throughout Yanco, Gosford, Wyong, Orange, Richmond (N.S.W.), Mildura, Castlemaine (Vic.), Stanthorpe, Mapleton (Q.), and the Huon (Tasmania).

PRICES:—7/9 per gallon in 4 gallon tins, 8/6 in 1 gallon tins, F.O.B. Sydney.

PAMPHLET AND TESTIMONIALS ON REQUEST.

GILLARD GORDON (Aus.) LTD., Rozelle, N.S.W.



POINTS IN HIVE CONSTRUCTION.

The correct bee space between sets of frames in the stories of a hive is $\frac{1}{8}$ inch.

* * * * *

It is not advisable to have entrances larger than $\frac{5}{16}$ th of an inch, as mice may enter and destroy any combs not occupied by bees.

* * * * *

Water is largely consumed by bees and put to many uses in the hive. See that a good supply is available.

* * * * *

When adopting a certain kind of hive, remember that the walls should not be less than $\frac{1}{2}$ of an inch in thickness, otherwise extremes of temperature will effect the bees, and during very hot weather combs may melt down.

* * * * *

A hive cover should be watertight above all things, but it should also be constructed so that it will throw the water clear of the hive walls, and prevent the fierce heat of summer and the winter frosts penetrating from the top.

KILL THE CODLIN MOTH

and other insect pests with

HEMINGWAYS (English)**ARSENATE OF LEAD**

(Paste)

The Best and Most Successful on the market

Effective, Economical and Easy to Use

Prices

1/3d per lb. for 100lb. kegs
1/3½ per lb. for 50lb. kegs

Wholesale distributing agent for Victoria,

Esmond Russell

60 Queen Street, Melbourne

HORTICULTURAL RESEARCH STATION.

A Research Station has been established at Malling, England, in order to carry out research work in horticulture.

The British Ministry of Agriculture has promised a grant of £6,600, provided that £2,200 is raised by the Research Station and those interested.

Earnest efforts are being made to raise the necessary quota from fruit-growers and all interested in commercial horticulture in England. The "Horticultural Advertiser" (England) emphasising the importance of this research station, and requesting the trade to give generous donations, states—"At present a very valuable experiment is going forward in testing the varieties of Plums on different stocks. There is no subject more puzzling to the fruit-tree raiser than the incompatibility of Plums with certain stocks, and we think the experiment is such that very few nurserymen could undertake it, and the work once done will benefit the whole trade. This alone would fully justify the small sum given in annual subscriptions.

"If it be true that he gives twice who gives quickly, it should also be true that delayed subscriptions should be doubled, and therefore it will be a matter of economy for all fruit-tree nurserymen to send their cheques at once, and in so doing they will have the satisfaction of knowing they are helping forward a work which will benefit the country in general and themselves in particular."

THE "FRUIT WORLD" APPRECIATED.

"Cannot Afford to be Without It."

Forest Range, S. Aust., 2/10/23.

"Please continue to forward to me at Forest Range until further notice, 'The Fruit World.' I cannot afford to be without your valuable journal, as we consider it a very necessary paper in connection with fruitgrowing."—N. W. F.

Bridgetown, 9/10/23.

"I like the 'Fruit World' very much." O. S.


THE BEST FRUIT

Can Only be Obtained from Healthy, Thrifty Trees.
TREES FROM THE

BALHANNAH DECIDUOUS NURSERIES

Postal Address . . . BALHANNAH, SOUTH AUSTRALIA
Are bearing heavy crops of first quality fruit in leading fruitgrowing centres throughout the Commonwealth.

QUALITY IS MORE THAN A SLOGAN WITH US—IT IS THE KEYSTONE OF OUR BUSINESS.

Inquiries Solicited. H. N. WICKS, Proprietor.

FIRST!

. . . THE . . .

Latham Dehydrators

The Widest Fruit Drying Experience in the world is behind these plants. The best possible recommendation is the extent of one's patronage. My plants attract by far the largest drying business in the Southern Hemisphere.

Some Installations

Purchaser	Principal Fruits
Merbein Dehydration Trust, Mildura	Sultanas
Tasmanian Dehydration Pty. Ltd., Bridgewater	Apricots Prunes Apples
Charles Martin, Yackandandah	Prunes
Swallow & Ariell Ltd., Port Melbourne.	Carrots Turnips Cabbages, etc.

Lemon Processing Plants.**Dried Fruit Graders****Dried Fruit Boxing Presses****Apple Slicing Machines**

Belting Pulleys, Shafting, Bearings, Engines and Boilers, Cranes and Hoists, Piping, Trucks, Conveyors, Thermometers, Fruit Trays etc., etc.

D. J. LATHAM
157 Queen Street,
MELBOURNE,
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Sulphide Fertilisers Stand Supreme

There are
SPECIAL
SULPHIDE
FERTILISERS
for all crops

SULPHIDE SPECIAL ORCHARD MANURE

analysing as follows:

Nitrogen - Sulphate Ammonia	2.30%
Phosphoric Acid, water soluble	12.00%
" " citrate soluble	.40%
" " insoluble	.40%
Total Phosphoric Acid	1.80
Potash	7.25

and sold at

£11 per ton f.o.r. Cockle Creek

has given wonderful results in many of the
Fruitgrowing districts of New South Wales.

Try Some on Your Fruit Trees

applied at the rate of approximately 1lb. of
fertilizer for each year of the tree's growth

Price List and analysis of the complete range of
SULPHIDE FERTILISERS
will be sent on application to

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37 PITT STREET . . . SYDNEY

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T.S.S.	MORETON BAY	Tons	Brisbane	Sydney	Melbourne	Adelaide	Fremantle
"	JERVIS BAY	13,850	5th Nov.	10th Nov.	14th Nov.	17th Nov.	23rd Nov.
"	LARGS BAY	13,850	1st Dec.	8th Dec.	12th Dec.	15th Jec.	20th Dec.
"	HOBSONS BAY	13,850	22nd Dec.	29th Dec.	2nd Jan.	5th Jan.	10th Jan.
"	ESPERANCE BAY	13,850	14th Jan.	19th Jan.	23rd "	26th "	31st "
			9th Feb.	16th Feb.	20th Feb.	23rd Feb.	28th Feb.

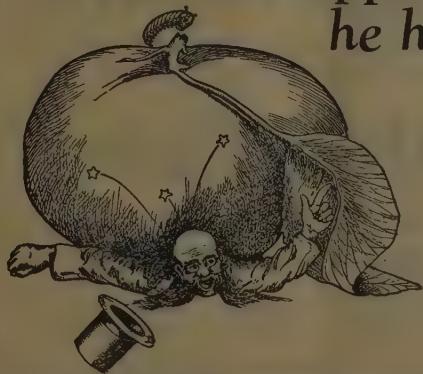
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AGENTS AT ALL OTHER AUSTRALIAN PORTS

When the apple fell on Sir Isaac Newton
he hollered out—"Three Cheers,
I've discovered Gravity!"



If he had sprayed with

"CARLTON"
Arsenate of Lead

he would have discovered how to kill the grub, and make
the apple stop on the tree.

Order "CARLTON" Now and make sure.
You cannot afford to let the grub spoil your fruit,
IT'S YOUR LIVING !

One pound of "CARLTON" kills more grubs than a pound
of any other paste, because it's the highest quality on the
market, as shown by Government tests. It's 20% to 33%
stronger than others.

F. R. MELLOR, 440 Elizabeth St., Melbourne



"VALLO"
SPRAY SPREADER

Makes Your Spray Spread and Stay.

It can be added to all Sprays both Summer and Winter. Used with Arsenate of Lead, Lime Sulphur, Bordeaux Mixture, Nicotine Sulphate. Tins containing 20lb. at 10d. lb. f.o.b. or f.o.r., Main Aust. Ports.

"VALLO"

CALCIUM ARSENATE

For the destruction of Garden Snails, Wood Lice and all leaf eating insects.

Tins containing 1 lb., at 1/6 lb. F.o.b. or f.o.r. Main Aust. Ports. You will be interested to see our Booklets and Price Lists, Free on application.

Agents throughout Australia and New Zealand.

Manufactured in Australia by
A. VICTOR LEGGO & CO.
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STRAWBERRY PLANTS.
Most Sorts, £1 per 1,000.
PASSION FRUIT PLANTS.
Strong, from open beds.
6/- per 100.
50/- per 1,000.
LOGANBERRIES.
4/- per dozen.
20/- per 100.
£7/10/- per 1,000.
BLACK LOGANBERRIES.
5/- per doz., etc.
Above Prices, free on rail.

FREDERICK T. LUSTY, Junr.

"Palmgrove Nursery,"
Arcliffie, N.S.W.

We can quote Plants and Seeds of all kinds. Prices Moderate.

CITRUS TREES for EARLY AUTUMN PLANTING

We have fine stocks available in both

Branched Trees and — Straight Rods —

These, if Nursery rowed now, would make fine, hard stuff for February-March planting.

Write Us—

F. Ferguson & Son
Australian Nurseries
HURSTVILLE — N.S.W.

JAVA TRADE

Special Notice to
Australian Fruit and Produce Growers,
Manufacturers, and Importers of
Tropical Produce.

WM. McCORKILL,

Late Managing Director of McCorkill Ltd., Perth, Fremantle and Sourabaya, is now a resident of Sourabaya, Java, and solicits Agencies, Consignments and Commissions.

TWENTY YEARS' experience in handling all classes of Fruit and Produce.

TWELVE YEARS' experience Java-Australian Trade.

Prompt Returns Guaranteed.

Sufficient Address: McCORKILL, Sourabaya, Java.

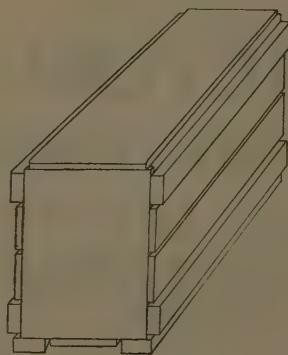
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When shipping your FRUIT use the

"AIRFREE" CASE

(Patent 9331/22)

Which
EN-
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Protects
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Full particulars from

ESMOND RUSSELL

60 Queen Street, Melbourne
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PEACH GROWERS

YOUR TIME IS COMING ONCE AGAIN,
SO MAKE IT EASY WITH

The "Ellisizer"

The Grader with only
ONE moving element

£16/10/- and £21/10/-

Ellis Fruit Grader Co.

226 FLINDERS LANE,

Agents:

Colonial and Interstate Agents:—Queensland—St. Shrm. Q'lnd Fruitgrowers' Assn., Roma St., Brisbane. N.S.W. H. H. Hinds Ltd., 484 Kent St., Sydney. Tas.—Buchanan, Davidson & Co. Ltd., 7 Murray St., Hobart. Sth. Aus.—Premier Machinery Co., Morphett St., Adelaide. New Zealand—A. Simmonds Ltd., Heretaunga St., Hastings. South Africa—Oswald Bros., Cape Town.

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Wanted and For Sale.

Advertisements under this heading, which cannot exceed one inch, will be classified as far as possible.

A valuable medium for assisting in the interchange of orchard equipment. If you desire to sell or purchase an implement, pumps, or any other orchard equipment, insert an advertisement in this column. Surplus stocks of cases, paper and other materials can also be disposed of through this column. Advertise your produce to growers in other parts. Prices are as follows:-

Casual Advertisements, one or three months—9d. per line of six words. Nine lines to the inch.

Contract Advertisements, six or twelve month, 6d. per line of 6 words, 9 lines to the inch.

Send cash with order.

BOOKS.

FRUIT WORLD ANNUAL AND TRADE RECORD, 1923 edition available. 3/- posted—9 Queen Street, Melbourne.

PRUNING FRUIT TREES, By G. Quinn. Illustrated. 4/9 posted—“Fruit World,” 9 Queen Street, Melbourne, Vic.

EVAPORATOR.

E VAPORATOR, Berger & Carter, £60, Fruit or Vines; perfect order. H. F. GREENWOOD, Merrigum.

FRUIT CASES.

I CAN supply Fruit Cases, any quantity. Prices reasonable. Write for quotations. ALF. BLOOM, Fruitgrower and Case Maker, Mitcham, Victoria.

LIME.

A GRICULTURAL LIME, ground fine, no lumps, excellent results. Truck loads promptly.

SPALDING LIME CO.,
LARA,

Victoria.

SPRAY PUMP.

B AVE-U POWER SPRAY PUMP, Secondhand, in good order. Can be inspected in Melbourne. Owner must sell, exceptional terms can be arranged. Full particulars, ESMOND RUSSELL, 60 Queen-st., Melbourne.

SITUATIONS WANTED.

T ASMANIAN FRUITGROWER, 14 years' experience, open engagement on orchard, Victoria or other States, highest credentials. “STURMER,” c/o “Fruit World,” Melbourne.

WE BUY LEMONS

Green Citrons and Shaddocks, Seedling Oranges, Tomatoes, Cherries for crystallising, Loganberries, Raspberries and Strawberries, Passion Fruit.

C. M. BROOKE & SON,
Whiteman St., South Melbourne, Vic.

SUBSCRIBERS' PAYMENTS RECEIVED.

The following are the subscriptions received from September 20th to October 20th, 1923. The month quoted in parenthesis indicates to what date the subscription is paid. These are exclusive of the subscribers who have paid to local agents or to our offices in the various States:-

Adams, W. G. (July, '23), Andrew, J. C. (Sept. '21), Bayley Bros. (Sept. '24), Billis, R. V. (Mar. '24), Best, H. A. (Nov. '23), Blec, S. H. (May, '21), Brown, C. (Aug. '24), Bailey, A. E. (Sept. '21), Boehm, J. B. (Sept. '24), Batten, W. H. (Apl. '27), Calder, S. P. (Sept. '24), Cawood, W. (July, '21), Collins, J. (Apl. '25), Cunich, A. (Sept. '25),

'25), Gregson, R. (Sept. '24), Gibbs, Bright & Co. (July, '24), Grasby, J. (Sept. '23), Gibb, H. T. (Aug. '24), Hay, H. D. (Sept. '27), Hicks, E. T. (June, '25), Holland, J. E. (July, '24), Hurn, C. M. (Sept. '24), Hurn, W. (Nov. '23), Irish, D. W. (July, '24), Jameson, S. B. (Aug. '24), Jones, T. B. (Nov. '23), Johns, Jas. (Oct. '23), Kieselbach, A. (Sept. '24), Lindfield, J. (Sept. '21), Lochhead, A. S. (May, '25), Leslie, Wm. (Sept. '24), Lawrence, B. J. (Sept. '24), Mann, Jno. (Sept. '23), Mock, G. (Dec. '23), Moore Bros. (July, '24), Mott, E. E. (Dec. '23), Morgan and Willington (Dec. '23), Mobs, R. (Aug. '24), Mattiski, J. W. (Dec. '24), Miller, W. W. (Aug. '27), Mason, K. (Sept. '21), McGregor, J. E. (Mar. '24), Nancarrow, W. J. (Sept. '24), Olle, P. R. (Sept. '24), Ochse, J. J. (Feb. '25), Pace, C. G. (Jan. '24), Pattinson Bros. (Sept. '24), Pullar, F. T. (Aug. '24), Pfeiffer, T. G. (Nov. '23), Peacock, A. junr. (Sept. '24), Rowe, B. J. (Sept. '24), Simon, A. C. (Dec. '23), Sweetman, W. J. (Oct. '24), Speer, L. (Oct. '23), Soumnes, W. & Sons (Oct. '23), Schmidt, F. W. (Sept. '24), Smith, Alex. (Apl. '24), Tolley, Geo. H. (Oct. '24), Toebelemann, J. Sept. '24), Weare, J. F. (Dec. '23), Wark, H. S. (Dec. '23), Webb, R. (Dec. '23), Wilson, G. (Aug. '24), Whitten, R. (Mar. '24), Young, A. & W. (June, '24), Zieus, R. A. (Feb. '24).



Aeroplane view of an American Can Making Co.'s Premises.

Chandler, H. R. (Sept. '24), Chesterfield, F. W. (Aug. '24), Donaldson, J. (Aug. '24), Downham, J. (Sept. '24), Draper, R. H. (Nov. '23), Edgar, O. S. (Sept. '24), Eyres, S. E. (Sept. '24), Evans, A. (Oct. '23), Ellis, R. C. (Sept. '23), Ellis, M. T. (Nov.,

Edward Jacobs & Sons

Covent Garden Market
LONDON, ENGLAND

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PRINCES WHARF, HOBART

Shipping Number 418.

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75	6,074,284	5,353,568	13,131,319	14,106,422

Ensure minimum handling, transport and distributing charges by shipping via the most direct route from Producer to Consumer.

Information as to Port and Forwarding Charges, Steamship Services, Merchants and Importers, etc., on application to the representative of the Manchester Ship Canal Company for Australia and New Zealand:—

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THAT'S why the Doncaster leads among Sprayers, as Orchardists have proved. Pumps work direct from Engine crankshaft, and are made of cast iron. All working parts bushed with gunmetal. Hollow type plungers, which permit of fork to be fitted at bottom, and attached to plungers, thus reducing wear. Valves have square top caps. Large U shaped Vat, 80 gallon capacity. Improved mechanical agitator ensures perfect assimilation of liquid. Power supplied by our high grade Petrol Engines, which are famous everywhere—runs 500 revolutions per minute—and when not spraying, can be used for other power work.

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if only by a line or two—Our Readers are Your Clients. It is an able and wise introduction, and when you go through the fruit districts our Readers will have already known you through us. It pays best to send Consignments Regularly—Not Occasionally—to the best markets, by doing so you strike the rising and falling markets and make a fair average for the season.

A ten times wider and better distribution will ensure a ten times greater production, at more payable returns. It is large and valuable exports from settled industries that make a nation prosperous.—Ed. "F.W."

This Journal is the recognised representative of the FRUIT TRADE in the Southern Hemisphere.

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Advertising in this Journal.

NEW SOUTH WALES.

Sydney.

Chilton, F., City Fruit Markets.
Hopkins & Lipscombe, Fruit Exchange.
Rogers, F. H. G., Fruit Exchange.
Rule & Beavis, Fruit Exchange.
Wade, Noel, V., Royal Exchange (representing the North of England Fruit Brokers Ltd., Manchester, Eng.).

VICTORIA.

Melbourne.

Coastal Farmers' Co-op. Society, Western Market.
Davis, J., Western Market.
Dennys, Lascelles Ltd., 509 Collins Street.
Lister, G., Western Market.
Mills & Co., J. B., 9 Queen Street (representing Notthard, Lowe & Wills Ltd., London).
Millis, A., & Sons, Western Markets.
McClure, Valentine & Co. Pty. Ltd., 49 William St.
Mumford, J. G., 449 Flinders Lane.
Pang & Co. Ltd., H. L., Little Bourke St.
Silbert, Sharp & Davies, Western Markets.
Stott & Son, T., Western Markets.
Tim Young & Co., Western Market.
Vear, F. W., 49 William Street.
Wade & Co., H. M., 489 Flinders Lane.
Woolf, G., Western Market.

QUEENSLAND.

Brisbane.

Barr, A. S., Fruit Exchange.
Collard & Mackay, Fruit Exchange.
Cooksey & Co., Fruit Exchange.
Finlayson & Son, Fruit Exchange.
Geeves, H. V., Fruit Exchange.
International Fruit and Produce Co., Fruit Exchange.
Robsons Ltd., Fruit Exchange.
W. J. Whitten & Co., Fruit Exchange.

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Perth.

Wills & Co. Ltd., G., Exporters.

SOUTH AUSTRALIA.

Adelaide.

Wills & Co. Ltd., G., Exporters.

TASMANIA.

Hobart.

Jones & Co. Ltd., H., Fruit Exporters.
Peacock & Co., W. D., Fruit Exporters, and at London.

NEW ZEALAND.

Auckland.

Radley & Co. Ltd., Fruit Auctioneers.
Turner & Growers Ltd., City Markets.

Dunedin.

Co-operative Fruitgrowers' of Otago Ltd.
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Central Produce Mart, Moray Place.

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Poupart, T. J., Covent Garden.
Ridley, Houlding & Co., Covent Garden.
Swann & Co., 3 Salter's Hall Court.

Hull.

White & Son Ltd.

Liverpool.

J. Adam, Son & Co.
Roger White & Co., 87 Victoria Street.

Manchester.

North of England Fruit Brokers Ltd.

SHIPPING NOTES.

Canada to Australia.—We hear that the direct service from Montreal to Australian ports, started a few months ago by the New Zealand Shipping Company, has proved very popular with shippers in both countries. The sailings are monthly at present, but if the business forthcoming should warrant it, these would no doubt be supplemented.

Australian Liners.—The "Mooltan," the first of the 20,000-tonners of the P. and O. Company to be placed in the Australian trade, is scheduled to leave London on December 21st next on her maiden voyage. A sister ship, the "Maloja," will leave on January 18th, according to present arrangements. Both vessels will be fitted out on a luxurious scale, and will have a fine turn of speed. With the two 20,000-ton steamers building for the Orient Line, referred to in another paragraph, also in commission, Australians will have little to complain about as regards the efforts of the two companies to cater for their requirements.

For the Australian Service.—The Orient liner "Oronsay," which is on the stocks at Clydebank, and the "Oroma," building at Barrow-in-Furness, are to be two-class ships, each carrying 600 first-class and 1,200 third-class passengers. As they will be of 20,000 tons' displacement and 630 feet in length, they will be in several ways the most interesting vessels in the Australian service.—"Imperial Food Journal."

British and Australasian Market Reports

English Fruit Market.

Tasmanian Sturmer Pippins sold in London on July 30th at 20/-, 21/-

per case. South African Navel Oranges sold on the same date at 28/- per case, seedlings 26/-, 27/-, Prices were lower on September 10th, Navels bringing 16/-, 22/-, Seedlings 15/-, 21/-. English Apples realised 6/-, 8/- per bushel. The foregoing are extracts from report from T. J. Poupart Ltd.

APPLES BRING 24/- CASE.

Big Prices for American Apples.
Liverpool (29/8/23).

American new season Apples in barrels realised 36/-, 40/-. Californian Gravensteins, 24/6 per box. On September 5th Albermarle brought 44/-, 60/- per barrel, other varieties 30/-, to 50/-; Gravensteins, 17/6, 21/6 per box. Winter Bananas, 16/6, 22/6. American Pears, Bartlett, 51/-, 55/- barrel. A new development is the arrival of direct steamers from Cape Town to Liverpool. South African Navels and seedlings realised 18/-, 22/6.

Australian dried fruits per the "Boonah" and "Northumberland" sold as follows:—Currants, 2 crown, 63/- cwt.; 3 crown, 66/-; Lexias, 42/6 cwt.; Sultanas, 2 crown, 70/-; 3 crown, 75/-.

AUSTRALIAN ORANGES IN LONDON.

Good Prices Realised.

The "Largs Bay" landed 755 cases in good condition. The V.C.C.A. received the following cablegram from their agents:—"Largs Bay" condition satisfactory. Good demand counts of 96 to 112 brought 24/- to 26/-; counts of 125 and upwards, 27/- to 30/-."

AUSTRALIA.

New South Wales.

Mr. F. Chilton, City Fruit Markets, reports under date 25/10/23, as follows:—Queensland Fruits:—Pines, smooths (colored), 14/- to 17/- per case; Tomatoes, 10/- to 20/- per half case. N.S.W. Fruits.—Bananas (Tweed River), 18/- to 30/- per case; Oranges, 10/- to 15/- per bushel case; Navel Oranges, 10/- to 24/-; Mandarins, 4/- to 20/-; Lemons, 4/- to 9/-; Apples, Granny Smith, 9/- to 20/- Passions, 8/- to 18/- per half case; Loquats, 4/- to 12/-. N.B.—Prices for New South Wales fruit are quoted exclusive of case. Victorian Fruits.—Pears, Jos., 12/- to 22/- per bushel case. Tasmanian Fruits.—Apples, Crofton, 7/- to 15/- per bushel case; S.P.M., 5/- to 13/-; S.T.F., 5/- to 11/-; F.C., 8/- to 14/-; Dem. (Tasma), 9/- to 16/-.

Victoria.

Melbourne (27/10/23).

Apples, eating, Jonathan, 9/- to 14/- per bushel case; Rome Beauty, 9/- to 11/-; other varieties, 7/- to 14/-; cooking, Five Crown, 8/- to 10/-; Tasmanian Sturmers, 7/- to 9/-. Pineapples, 12/- to 16/-. Bananas, 21/- to 28/-. Oranges, 10/- to

15/-; Valencias, 16/- to 18/-; special higher; Navel, 14/- to 18/-. Lemons, 8/- to 12/-. Mandarins, large, 14/- to 20/-; small, 3/- to 7/-. Passion-fruit, 25/- to 30/-.

Melbourne (20/10/23).

The V.C.C.A. Market Representative supplies the following report for the week ending October 20th:—"Supplies of Navel slackened considerably, and many of those which reached the market showed signs of waste. Good firm fruit was very hard to obtain. There was a keen demand for Valencias. Mandarins were almost a thing of the past.

"We anticipate good prices for all varieties marketed before the first of the soft fruits come to hand.

"Prices:—Navel, 60's, 13/-; 84's, 16/-; Mandarins, choice, 12/- to 18/-. Valencias, 13/- to 15/-; commons, 10/- to 12/-. Lemons, 7/- to 9/-."

Queensland.

Brisbane (25/10/23).

Apples: Vic. Jon., 7/- to 14/- per bushel case; Rokewood, 11/- to 15/-; Y.A., 8/6 to 15/-; Five Crowns, 14/-; R.B., 15/- to 17/-; Passion-fruit, 17/- to 18/-; inferior, 11/- to 13/-; Mangoes, 11/- to 12/-. Oranges, local, off the market; Sydney, imported, prime, 17/- to 18/-; medium, 14/- to 15/-; Mandarins, Sydney, special, 17/-; medium, 8/6 to 10/-; Lemons, imported, Sydney, 12/-

to 14/-; Pines, rough leaf, 4/- to 6/9 a dozen; smooth leaf, 3/- to 5/6; Bananas, prime, 5d. to 7d. doz.; medium, 3d. to 5d.; sugar, 1d. to 6d.; Lady's Fingers, 2d. to 7d.

West Australia.

Perth (20/10/23).

Apples, Yates, best, 13/- to 14/9 per bushel case; Doherty, medium, to 10/6; Granny Smiths, best, 14/- to 16/-; Delicious, 11/3 to 15/9; Dunn's, to 13/3; Ben Davis, to 9/6; Rokewoods, best, 11/- to 13/6; Navel, dumps, special, 16/- to 18/-; prime, 13/- to 15/-; flats, best, 8/- to 9/9; Valencias, dumps, to 10/3; flats, best, 8/- to 10/3; Oranges, to 6/-; Mandarins, best, 6/- to 8/3; Lemons, best, 5/- to 7/-; Strawberries, best, to 20/3; Passion-fruit, quarter cases, 12/6 to 18/-.

South Australia.

Adelaide (27/10/23).

Apples, eating, 12/- to 16/- per bushel case; cooking, 10/- to 12/-; Lemons, 7/-; Oranges, 10/-; Navel, 16/- to 17/- per case; Passion-fruit, 43/- to 45/-; Pineapples, 24/- per case; Bananas, Queensland, 30/- to 32/-.

New Zealand.

Dunedin (19/10/23).

Reilly's Central Produce Mart Ltd. report—Pears: Choice desserts, 13/6, 14/-, 14/6; medium, 10/-, 12/-; choice cooking, 7/6. Apples: Delicious, 16/- to 18/-; Dougherty's, 12/-, 13/-; Democrats, 11/6, 11/9; Jonathans, 10/6, 12/6; Cleopatras, 9/6; Sturmers, 7/6 to 14/6; cookers, choice, 6/6. Lemons: Adelaide, 16/-; American, 47/6. Oranges: Navel, choice, 30/-; Valencias, 25/-; American, 40/-. Passions: Choice, 27/6. Mandarins: Choice, 23/-; others, 15/- to 20/-. Bananas: Ripe, 32/6; green, 28/-. Pines: Choice, 28/- per case.

THE SOFT FRUIT INDUSTRY.

Home Bottling Advocated.

At the Royal Agricultural Show recently held in Melbourne, Messrs. Fowlers Pty. Ltd., of Hawthorn, exhibited a beautiful display of soft fruits preserved by their patent process in self-sealing vacuum bottles,

and ably demonstrated the simplicity and efficiency of their Fruit and Vegetable Bottling Outfits for home use, which are obtainable at all leading stores throughout Australia. There is not sufficient fruit eaten in this country; ample is produced, that is for the immediate moment when the fruit is ripe, but the difficulty is that 12 months' supply of fresh fruit cannot be consumed in four months; it is therefore imperative that a supply be preserved for use during the remaining period when the fresh fruit is not available.

The preservation of fruit in glass jars has been carried out in the home for ages past with more or less success in a very tedious and laborious manner, but with this up-to-date method of preservation under the Fowler System, by the aid of these scientific and simple self-sealing vacuum jars, it becomes a pleasurable and profitable pastime, and all the old fag and worry of manipulating the screw down jar, and the subsequent worry as to results, are absolutely abolished, as the Fowler System ensures 100 per cent. efficiency. The fruit may be bottled in water only, sugar is not essential, and the natural flavour and aroma of the fruit is maintained owing to the fact that the fruit is never boiled, only brought up to a sufficient temperature to cook the fruit and drive the air out of the bottle automatically, hermetically sealing same so that it will keep indefinitely.

OUR ADVERTISERS—YOUR REQUIREMENTS.

Corrugated Strawboard Liners for fruit cases are obtainable in the regular sizes from J. Fielding and Co. Ltd., Buckingham and Chalmers streets, Sydney, N.S.W.

Lara Agricultural Lime, specially ground for drilling, is obtainable from Spalding Lime Co., Lara, Vic. Write for prices.

Sulphide Special Orchard Manure is obtainable from Gibbs, Bright & Co., 37 Pitt-street, Sydney. Price, £11 per ton f.o.r. Cockle Creek, N.S.W. Price list of other sulphide fertilizers obtainable on application.

The Guider Fruit Grader grades all kinds of fruit, any number of sizes. Further particulars from J. L. Holland, Shepparton, Vic.

Cooksley & Co.

(W. P. COOKSLEY)

Reliable Fruit Agents
22 Years' Experience

TRY THEM!

Fruit Exchange, Brisbane

QUEENSLAND.

Shipping No. 29

Reference: Commercial Banking
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A Staff who have a personal interest in each consignment

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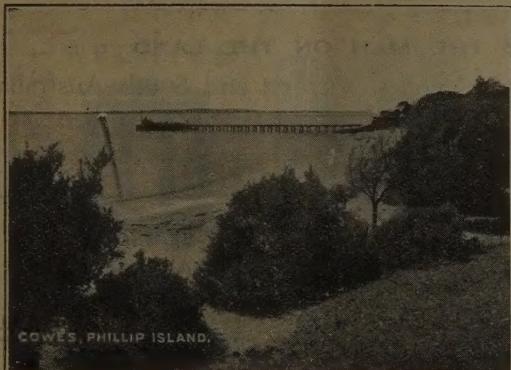
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Beautiful Victorian Holiday Resorts

— FOR —

YOUR SUMMER HOLIDAY



COWES, PHILLIP ISLAND.



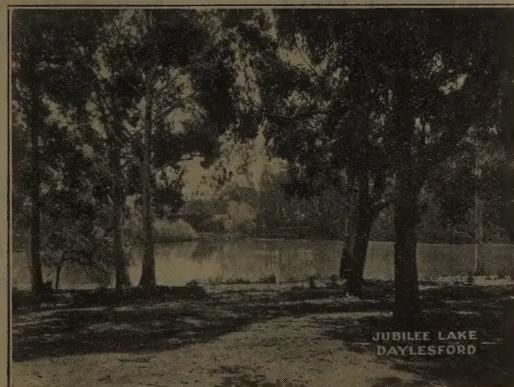
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ANGLESEA, a fine seaside resort reached by motor from Geelong. Boating, bathing, fishing and exhilarating rambles by cliffs or countryside are amongst its attractions.

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